NATIONAL AUTOMOTIVE SAMPLING SYSTEM (NASS)

CRASHWORTHINESS DATA SYSTEM

Analytical User's Manual

1999 File

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590

TABLE OF CONTENTS

SECTION 1

INTRODUCTION

The National Automotive Sampling System (NASS) Crashworthiness Data System (CDS) is a nationwide crash data collection program sponsored by the U.S. Department of Transportation. It is operated by the National Center for Statistics and Analysis (NCSA) of the National Highway Traffic Safety Administration (NHTSA).

The NASS CDS provides an automated, comprehensive national traffic crash data base. Data collection began in 1979 in 10 geographic sites, called Primary Sampling Units (PSU's). The 1999 NASS CDS file contains data from 24 PSU's. These data are weighted to represent all police reported motor vehicle crashes occurring in the USA during the year involving passenger cars, light trucks and vans that were towed due to damage.

The NASS program was re-evaluated in the mid-1980's. This re-evaluation resulted in changes which were implemented by NHTSA in January 1988. NASS now has two major operating components: (1) the General Estimates System (GES) which collects data on a sample of police traffic crash reports; and (2) the Crashworthiness Data System (CDS) which collects additional detailed information on a sample of police reported traffic crashes.

Comparing the 1988-1999 files with files from years prior to 1988 is not recommended. The principal attributes of the NASS CDS 1988-1999 files include: focusing on crashes involving automobiles and automobile derivatives, light trucks and vans with gross vehicle weight less than 10,000 pounds (4,537 kg); giving special consideration to late model year vehicles (the five most recent model years [four, beginning in 1996]); emphasizing the more serious injury crashes; eliminating the pedestrian and non-motorist record, the driver record and vehicle registration information. A revised set of data collection forms was designed in 1988 for the crashworthiness data system. Some features are: the introduction of an Accident Event Record to capture all events in the crash; the creation of three new vehicle records (General Vehicle, Exterior Vehicle, Interior Vehicle); and the separation of occupant records into an Occupant Assessment Record and an Occupant Injury Record, wherein all injuries are coded.

The NASS CDS file is available in two automated formats: a sequential data set or a Statistical Analysis System (SAS) data set. Hard copy data collection records, sanitized to protect privacy, are available for review through data collection year 1996. An electronic version of these records is available beginning with data collection year 1997. These records contain photographic images, scene diagrams, and vehicle damage diagrams.

This manual and the NASS 1999 Crashworthiness Data System's Data Collection, Coding and Editing Manual are the primary documentation supporting the automated file. When using this file one should

be careful to understand the coding conventions of all variables used thoroughly. In addition, the user may find the following documents helpful:

CRASH3 Technical Manual, July 1986

Collision Deformation Classification (SAE J224 MAR 80)

Injury Coding Manual 1993

NASS Design for Crashworthiness Research, April 1986 (Internal Working Paper)

General Description of the NASS Crashworthiness Data System Sample Design, April 1987 (Internal Working Paper)

1988-1996 NASS CDS Variable-Attribute Structure Manual

The first document is available from the DOT/Volpe National Transportation Systems Center (VNTSC), DTS-44, Kendall Square, Cambridge, Massachusetts 02142. The second document is available from the Society of Automotive Engineers (SAE), Warrendale, Pennsylvania 15096. The last four documents are available from the National Highway Traffic Safety Administration at the address below.

Comments on the content and utility of the files and primary documentation are appreciated. Please address them to the National Center for Statistics and Analysis - NRD-30, National Highway Traffic Safety Administration, U.S. Department of Transportation, 400 Seventh St., S.W., Washington, D.C. 20590.

SECTION 2

CHANGES IN 1999

ACCIDENT RECORD

One data element has been added, and one data element has been deleted.

Added:
TRUCK UNDERRIDE SPECIAL STUDY (AC10)

Deleted:
RUN OFF ROAD (AC09)—this Special Study is no longer active.

UNWEIGHTED CASES

Seven Impact Fires Special Study cases, which were over sampled, have been retained on the file with zero weight. Cases qualify for this special study if a vehicle fire occurs from an impact with another vehicle or object and the case is not selected as part of the CDS case sample. These over sampled crashes are limited to fires originating in late model year vehicles (1996-2000). All case numbers are in the 500 series e.g., 04-501E.

There were 34 Redesigned Air Bag Special Study (RABSS) cases over sampled. These cases have also been retained on the file with zero weight. Cases qualify for this study if a 1998 or later vehicle equipped with a redesigned air bag is involved in an impact which deploys the air bag. In addition, the crash configuration must be an impact where the air bag is designed to protect the occupants (e.g., 11 to 1 o'clock DOF). Case information is only required to be gathered on those occupants seated in a position where a redesigned air bag is located. Only partial information is collected on other occupants, and vehicles not equipped with a redesigned air bag. All case numbers are in the 800 series. One case, 79-501F, was in both the FIRE and RABSS special studies.

SECTION 3

THE SAMPLING SYSTEM AND SAMPLE DESIGN

The crashes investigated in NASS CDS are a probability sample of all police reported crashes in the U.S. A NASS CDS crash must fulfill the following requirements: must be police reported, must involve a harmful event (property damage and/or personal injury) resulting from a crash and must involve at least one towed passenger car or light truck or van in transport on a trafficway. Every crash which meets these conditions has a chance of being selected. This type of sample design makes it possible to compute estimates which are representative of the entire country.

The selection of sample crashes in NASS is accomplished in three stages: (1) selection of PSU's, (2) selection of police jurisdictions and (3) selection of crashes.

Stage 1 - Select PSU's

For the first stage of selection, the country was divided into 1195 geographic areas called Primary Sampling Units (PSU's). Each PSU consisted of either a central city, a county surrounding a central city, an entire county or a group of contiguous counties. The PSU's were defined so that their minimum population was approximately 50,000.

The 1195 PSU's were grouped into 12 strata based on geographic region and type, e.g., central cities, suburban counties, and other PSU's. The 24 PSU's to be sampled were allocated to each stratum roughly proportional to the number of crashes in each stratum. Two PSU's were selected from each stratum.

Stage 2 - Select Police Jurisdictions

If every crash in each PSU were investigated, a national estimate could be obtained by weighting each crash by the inverse of the probability of selecting the PSU. Because it is uneconomical and impractical to investigate every crash in each sample PSU, a second and third stage of sampling are performed. Each PSU contains a number of police jurisdictions which process reports of crashes that occur within the PSU's boundaries. These police jurisdictions form the frame of the second stage of sampling. Each jurisdiction is assigned a measure of size based on the number, severity and type of its crashes. A sample of jurisdictions is selected which over-samples those having a larger measure of size.

Stage 3 - Select Crashes

The final stage of sampling is the selection of crashes within the sampled jurisdictions. Each week, the police jurisdictions are contacted and all crashes that qualify for the NASS CDS for which a police crash report has been filed since the last date that jurisdiction was contacted are listed. While being listed, each crash is classified into a stratum based on type of vehicle, most severe police reported injury, disposition of the injured, tow status of the vehicles and model year of the vehicles. All qualifying crashes are listed, except in a few of the largest police jurisdictions. In these jurisdictions only crashes with either an even or an odd police crash report number are listed.

To select crashes, each team is assigned a fixed number of crashes to investigate each week. The number of crashes a team selects for investigation is governed by the number of researchers on a team. Sampling weights for the strata are assigned so that a larger percentage of the higher severity crashes are selected than of the lower severity crashes. Also, crashes in the same stratum have the same probability of being selected, regardless of the PSU.

To select the sample, each crash is assigned a weight equal to the inverse of the probability of selecting the police jurisdiction in which it was listed.

SAMPLING VARIABLES

The stratification category (1) by type of vehicle is "CDS applicable"---passenger cars, light trucks and vans and "other vehicles"---all other vehicle types; (2) by injury is "fatal injury"---K, "serious injury"---A or "minor injury, not injured or unknown"---B,C,O,U; (3) by disposition of the injured is "transported to a medical facility" or "not transported"; (4) by hospitalization is "occupant admitted at least overnight"; (5) by tow status is "towed due to damage" or "not towed"; (6) by model year of the vehicle is "late model year"---1996 through 2000 or "non-late model year"---1995 or before.

SAMPLING STRATA

The ten PAR sampling Strata used by the CDS are listed below and shown in Table 3-1:

Stratum A-NASS crashes in which at least one occupant of a towed CDS applicable late model year vehicle had a police reported injury of "K" (fatal injury).

Stratum B-NASS crashes not qualifying for Stratum A in which at least one occupant of a towed CDS applicable non-late model year vehicle had a police reported injury of "K" (fatal injury).

Stratum J-NASS crashes not qualifying for Strata A or B in which at least one occupant of a towed CDS applicable late model year vehicle had a police reported injury of "A" (incapacitating injury) AND was

transported to a treatment facility for treatment AND was admitted overnight to the hospital. If the crash involved more than one CDS applicable vehicle, at least two CDS applicable vehicles must be towed.

Stratum K-NASS crashes not qualifying for Strata A, B or J in which at least one occupant of a towed CDS applicable nonlate model year vehicle had a police reported injury of "A" (incapacitating injury) AND was transported to a treatment facility for treatment AND was admitted overnight to the hospital. If the crash involved more than one CDS applicable vehicle, at least two CDS applicable vehicles must be towed.

Stratum C-NASS crashes not qualifying for Strata A, B, J or K in which at least one occupant of a towed CDS applicable late model year vehicle had a police reported injury of "A" (incapacitating injury) AND was transported to a treatment facility for treatment. If the crash involved more than one CDS applicable vehicle, then at least two CDS applicable vehicles must be towed.

Stratum D-NASS crashes not qualifying for Strata A, B, J, K or C in which at least one occupant of a towed CDS applicable non-late model year vehicle had a police reported injury of "A" (incapacitating injury) AND was transported to a treatment facility for treatment. If the crash involved more than one CDS applicable vehicle, then at least two CDS applicable vehicles must be towed.

Stratum E-NASS crashes not qualifying for Strata A, B, J, K, C or D in which at least one occupant of a towed CDS applicable late model vehicle was transported from the scene to a treatment facility for treatment.

Stratum F-NASS crashes not qualifying for Strata A, B, J, K, C, D or E in which at least one occupant of a towed CDS applicable non-late model vehicle was transported from the scene to a treatment facility for treatment.

Stratum G-NASS crashes not qualifying for Strata A, B, J, K, C, D, E or F which involve at least one CDS applicable late model vehicle that was towed, according to the police report, from the scene due to damage.

Stratum H-NASS crashes not qualifying for Strata A, B, J, K, C, D, E, F or G which involve at least one CDS applicable non-late model vehicle that was towed, according to the police report, from the scene due to damage.

Example of Crash Stratification: A CDS applicable non-late model year vehicle and a bicycle crash. The CDS applicable vehicle is towed with minor injuries to the occupants, who are not transported. The bicyclist receives a serious injury---"A". The crash is classified as Stratum H because of the minor injuries to the occupants of the towed CDS applicable non-late model year vehicle.

Table 3-1
1999 NASS CDS Strata

Late Model Year (LMY) Vehicle Involvement	Most Severe Police Reported Injury								
	Fatal Injury "K"	Transported					Minor Injury or Unk. "B", "C", or "U"	Non-transported	
		Serious Injury "A"						Minor Injury, Not injured or Unknown	
		Single CDS Veh.		Multiple CDS Applicable Vehicles				At Least one Towed CDS Veh.	No Towed CDS Appli. Veh.
		Towed		Two or More Towed		Only One Towed			
		Hosp-ital-ized	Not Hosp-ital-ized	Hosp-ital-ized	Not Hosp-ital-ized				
Injury in Towed LMY CDS Veh.	A	J	C	J	C	E		G	Not in Scope
Injury not in Towed LMY CDS Veh.	B	K	D	K	D	F		H	

Note: Late Model Year refers to 1996 through 2000 model years.

Sampling

Because the crashes selected in NASS CDS are a probability sample of all crashes occurring in the survey year, the data from these crashes are "weighted" to produce National Estimates. The weights result from the stages of selection, reflecting that crash's probability of selection. The analysis file contains only one weight.

PSU Inflation Factor

The PSU Inflation Factor is the within PSU sampling weight for each crash in that PSU's sample and is equal to the inverse of that crash's probability of selection within the PSU. It is equal to the product of the inverse of the probability of selecting that crash from the other crashes and the inverse of the probability of selecting the police jurisdiction in which the crash occurred from among all police jurisdictions listed in the PSU (Stage 2).

The sum of the PSU Inflation Factors for all crashes sampled within a PSU is an unbiased estimate of the number of crashes which occurred during the year in that PSU. Unbiased estimates of crash characteristics

for a PSU can be obtained by multiplying the value of the characteristic for each crash sampled in the PSU by that crash's PSU Inflation Factor and summing.

National Inflation Factor

The National Inflation Factor is the overall sampling weight for each crash selected in the NASS sample and the inverse of the probability of selection of that crash. It is equal to product of the PSU Inflation Factor and the inverse of the probability of selection of the PSU (Stage 1).

The sum of the National Inflation Factors for all sampled NASS crashes in a year is an unbiased estimate of the total number of crashes which occurred during the year in the U.S. If restricted to a crash stratum, the sum is an estimate of the total number of that type of crash which occurred in that year. Unbiased estimates of National totals of crash characteristics can be obtained by multiplying the value of the characteristic for each crash in the NASS sample by the National Inflation Factor for that crash.

Ratio Inflation Factor

The Ratio Inflation Factor is the product of the National Inflation Factor and a rate which adjusts for differences between actual and estimated totals. This ratio is calculated using crash totals from both the sampled and non-sampled police jurisdictions. The totals for the sampled jurisdictions come from the Stage 3 frame. The totals for the non-sampled jurisdictions are collected annually. The PSU's are grouped into predetermined sets. Ratios are formed by dividing the total crashes in each stratum and in each set of PSU's by the estimated total. Those estimated totals are sums of the National Inflation Factors for each crash in the crash strata and set of PSU's.

Estimates of National totals for crash characteristics can be obtained using the Ratio Inflation Factor (RIF). However, because the RIFs have been adjusted to actual crash counts, some of the sampling variation has been removed. Therefore they will produce more precise estimates than the National Inflation Factor. It is for this reason that the RIF or Ratio Weight is the only weight on the analysis file. Less than one percent of the cases have RIFs greater than 5000. This is the result of listing at least twice the number of expected serious injury crashes on a given sampling day.

SECTION 4

DERIVED VARIABLES

Most of the data presented in the NASS record layout can be identified easily as coming from crash investigation and other activities of NASS field teams. The following data elements, however, are by-products of sampling procedures used by NASS or are derived from data processing applications, such as totaling the number of injured persons in a given crash. The following list identifies the specific data elements, gives their location in the Sequential File Record Layout, lists their SAS name (Label) and explains their derivation:

MAXIMUM TREATMENT IN THIS ACCIDENT (AC33) (SAS Label: ATREAT)

This single place numeric value indicates the most intensive treatment given to any occupant of a towed CDS applicable vehicle or a non-towed with air bag deployment in the crash, using the following order of codes:

1	FATAL
3	HOSPITALIZED
4	TRANSPORTED AND RELEASED
5	TREATMENT AT SCENE
6	TREATMENT LATER
7	TREATMENT - OTHER
8	TRANSPORTED TO A MEDICAL FACILITY - UNKNOWN IF TREATED
2	FATAL - RULED DISEASE
9	UNKNOWN
0	NO TREATMENT
.	NOT COLLECTED

This variable is derived by scanning the TREATMENT-MORTALITY (OA62) variable in each occupant assessment record in the crash.

Source: TREATMENT-MORTALITY (OA62).
Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. If there are no occupants in any towed CDS applicable vehicle in the crash, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.
SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

MAXIMUM KNOWN A.I.S. IN THIS ACCIDENT (AC34) (SAS Label: AAIS)

This single place numeric value indicates the single most severe injury level reported for any occupant of a towed CDS applicable vehicle or a non-towed with air bag deployment in the crash, using the following order of codes:

6 MAXIMUM (UNTREATABLE) INJURY
5 CRITICAL INJURY
4 SEVERE INJURY
3 SERIOUS INJURY
2 MODERATE INJURY
1 MINOR INJURY
7 INJURY, UNKNOWN SEVERITY
9 UNKNOWN IF INJURED
0 NOT INJURED
. NOT COLLECTED

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on each occupant injury record in the crash. If none of the occupants in the crash has an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

Source: A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).
Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2) Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00. If there are no occupants in any towed CDS applicable vehicle in the crash, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.
SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

NUMBER OF SERIOUSLY INJURED OCCUPANTS IN THIS ACCIDENT (AC35-36) (SAS Label: AINJSER)

This two place numeric value indicates the total number of fatally and other seriously injured occupants of towed CDS applicable vehicles or non-towed with air bag deployment involved in the crash. It is derived by totaling for the crash either the number of occupant assessment records

in which the TREATMENT-MORTALITY (OA62) value is coded "1" (Fatal) or the number of occupant injury records in which the A.I.S. SEVERITY (OI010...OI100) value is coded "3-6". (Add together "1"s in OA62 and if the code in OA62 is not equal to "1", add one injury per occupant where OI010...OI100 is "3-6").

Source: TREATMENT-MORTALITY (OA62) and A.I.S. SEVERITY (OI010...OI100).
Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2) Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00. If none of the occupants in the crash has an occupant injury record or if, on all the occupant assessment records the only codes in OA70 are equal to "97, 99 or 00", then use code "00" (None) for this derived variable. If there are no occupants in any towed CDS applicable vehicle in the crash, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.
SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

NUMBER OF INJURED OCCUPANTS IN THIS ACCIDENT (AC37-38) (SAS Label: AINJURED)

This two place numeric value indicates the total number of injured occupants of towed CDS applicable vehicles or non-towed with air bag deployment involved in the crash. It is derived by totaling the number of occupant assessment records in which the variable NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) has a value of 01-97.

Source: NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).
Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. Non-

towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. If, on all the occupant assessment records in the crash, the only codes in OA70 are equal to "99 or 00", then use code "00" (None) for this derived variable. If there are no occupants in any towed CDS applicable vehicle in the crash, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.
SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

ALCOHOL INVOLVEMENT IN THIS ACCIDENT (AC39) (SAS Label: ALCINV)

This single place numeric value indicates if any involved driver were reported to have had some alcohol involvement at the time of the crash, using the following order of codes:

1 YES
2 NO
9 UNKNOWN

This variable is derived by scanning the POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER (GV13) and ALCOHOL TEST RESULT FOR DRIVER (GV14) variables on each general vehicle record in the crash. The ALCOHOL INVOLVEMENT codes are derived as follows:

(YES) 1 - If POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER equals 1 (YES-ALCOHOL PRESENT) or ALCOHOL TEST RESULT FOR DRIVER equals 01-49 (positive result).

(NO) 2 - If POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER equals 0 (NO ALCOHOL PRESENT) and ALCOHOL TEST RESULT FOR DRIVER equals 00 (NONE) or 96 (NONE GIVEN).

(UNKNOWN) 9 - If the variables shown above have any other combination of values.

Source: POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER (GV13) and ALCOHOL TEST RESULT FOR DRIVER (GV14).
Missing Values: None (must have at least one general vehicle record coded through the variable ACCIDENT TYPE (GV36) in the crash).
SAS Codes: .U for 9 (Unknown).

DAY OF WEEK (AC40-41) (SAS Label: DAYWEEK)

This two place numeric value indicates on which day of the week the crash occurred. To protect the confidentiality of records concerning specific crashes used by NASS, the crash date is not provided. Instead, the crash record indicates year, month and DAY OF WEEK of crash occurrence. DAY OF WEEK values are coded as follows:

01	Sunday	05	Thursday
02	Monday	06	Friday
03	Tuesday	07	Saturday
04	Wednesday		

Source: DATE OF ACCIDENT (AC04).
Missing Values: None.
SAS codes: None. Unknown is not a valid code.

PSU INFLATION FACTOR (SAS Label: PSUWGT)

This eight place numeric value has three implied decimal places. It indicates the within PSU sampling weight for each crash in that PSU's sample.
This weight is not on the current year file.

Source: Computed by NHTSA Headquarters.
Missing Values: None.
SAS Codes: None.

NATIONAL INFLATION FACTOR (SAS Label: NATWGT)

This eight place numeric value has three implied decimal places. It indicates the overall sampling weight for each crash selected in the NASS sample.
This weight is not on the current year file.

Source: Computed by NHTSA Headquarters.
Missing Values: None.
SAS Codes: None.

RATIO INFLATION FACTOR (AC58-65) (SAS Label: RATWGT)

This eight place numeric value has three implied decimal places. It is the product of the National Inflation Factor and a ratio which adjusts for differences between actual and estimated totals.

Source: Computed by NHTSA Headquarters.
Missing Values: None.
SAS Codes: None.

DRUG INVOLVEMENT IN THIS ACCIDENT (AC66) (SAS Label: DRGINV)

This single place numeric value indicates if any involved driver were reported to have had some drug involvement at the time of the crash, using the following order of codes:

1 YES
2 NO
3 UNKNOWN

This variable is derived by scanning the POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER (GV15) and OTHER DRUG SPECIMEN TEST RESULT (GV16) variables on each general vehicle record in the crash. The DRUG INVOLVEMENT codes are derived as follows:

(YES) 1 - If POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER equals 1 (YES - OTHER DRUG PRESENT) or OTHER DRUG SPECIMEN TEST RESULT equals 2 (DRUG FOUND IN SPECIMEN).

(NO) 2 -If POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER equals 0 (NO OTHER DRUGS PRESENT) and OTHER DRUG SPECIMEN TEST RESULT equals 0 (NO SPECIMEN TEST GIVEN) or 1 (DRUG NOT FOUND IN SPECIMEN).

(UNKNOWN) 9 - If the variables shown above have any other combination of values.

Source: POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER (GV15) and OTHER DRUG SPECIMEN TEST RESULT (GV16).
Missing Values: None (must have at least one general vehicle record coded through the variable ACCIDENT TYPE (GV36) in the crash).
SAS Codes: .U for 9 (Unknown).

MANNER OF COLLISION (AC67) (SAS Label: MANCOLL)

This single place numeric value indicates the configuration of the crash based on the first harmful event, using the following codes:

0 NOT COLLISION WITH VEHICLE IN TRANSPORT
1 REAR-END
2 HEAD-ON
4 ANGLE
5 SIDESWIPE, SAME DIRECTION
6 SIDESWIPE, OPPOSITE DIRECTION
9 UNKNOWN

This variable is derived by scanning the OBJECT CONTACTED (AC16) variable on the crash event record and the ACCIDENT TYPE (GV36) variable on the general vehicle record, where VEHICLE NUMBER (AC13) equals VEHICLE NUMBER (GV03). The MANNER OF COLLISION codes are derived as follows:

0 (NOT COLLISION WITH VEHICLE IN TRANSPORT) - If OBJECT CONTACTED equals 31-99.
1 (REAR-END) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 20-43.
2 (HEAD-ON) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 50-63.
4 (ANGLE) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 68-91.
5 (SIDESWIPE, SAME DIRECTION) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 44-49.
6 (SIDESWIPE, OPPOSITE DIRECTION) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 64-67.
9 (UNKNOWN) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 92-99.

Source: OBJECT CONTACTED (AC16) and ACCIDENT TYPE (GV36).
Missing Values: None (must have at least one general vehicle record coded through the variable ACCIDENT TYPE (GV36) in the crash.
SAS Codes: .U for 9 (Unknown).

PSU STRATA (AC68-69) (SAS Label: PSUSTRAT)

This two place numeric variable indicates the stratum into which each PSU is grouped in the first stage of selection of sample crashes. It is used for calculating variance by analysts using the SUDAAN statistical system. Values are coded as follows:

01 - 12

This variable is derived by scanning a coded table consisting of PSU number and stratum number.

Source: PSU NUMBER (AC01) and coded table.
Missing Values: None.
SAS Codes: None.

MAXIMUM TREATMENT IN THIS VEHICLE (GV75-REC22) (SAS Label: VTREAT)

This single place numeric value indicates the most intensive treatment given to any occupant of this towed CDS applicable vehicle or non-towed with air bag deployment using the following order of codes:

1 FATAL
3 HOSPITALIZED
4 TRANSPORTED AND RELEASED
5 TREATMENT AT SCENE
6 TREATMENT LATER
7 TREATMENT - OTHER

8 TRANSPORTED TO A MEDICAL FACILITY - UNKNOWN IF TREATED
2 FATAL - RULED DISEASE
9 UNKNOWN
0 NO TREATMENT
. NOT COLLECTED

This variable is derived by scanning the TREATMENT-MORTALITY (OA62) variable in each occupant assessment record in this vehicle.

Source: TREATMENT-MORTALITY (OA62).
Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.
SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

MAXIMUM KNOWN A.I.S. IN THIS VEHICLE (GV76-REC22) (SAS Label: VAIS)

This single place numeric value indicates the single most severe injury level reported for any occupant in this towed CDS applicable vehicle or non-towed with air bag deployment using the following order of codes:

6 MAXIMUM (UNTREATABLE) INJURY
5 CRITICAL INJURY
4 SEVERE INJURY
3 SERIOUS INJURY
2 MODERATE INJURY
1 MINOR INJURY
7 INJURY, UNKNOWN SEVERITY
9 UNKNOWN IF INJURED
0 NOT INJURED
. NOT COLLECTED

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on each occupant injury record in this towed CDS applicable vehicle or non-towed with air bag deployment. If none of the occupants in this vehicle has an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the

occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

Source: A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).
Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2) Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file.
SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

NUMBER SERIOUSLY INJURED IN THIS VEHICLE (GV77&78-REC22) (SAS Label: VINJSER)

This two place numeric value indicates the total number of fatally and other seriously injured occupants of this towed CDS applicable vehicle or non-towed with air bag deployment. It is derived by totaling for the vehicle either the number of occupant assessment records in which the TREATMENT-MORTALITY (OA62) value is coded "1" (Fatal) or the number of occupant injury records in which the A.I.S. SEVERITY (OI010...OI100) value is coded "3-6". (Add together "1"s in OA62 and if the code in OA62 is not equal to "1", add one injury per occupant where OI010...OI100 is "3-6").

Source: TREATMENT-MORTALITY (OA62) and A.I.S. SEVERITY (OI010...OI100).
Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2) Non towed CDS applicable vehicles with no

known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00.

If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. If, on all the occupant assessment records in the vehicle, the only codes in OA70 are equal to "97, 99 or 00", then use code "00" (None) for this derived variable.
SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

NUMBER INJURED IN THIS VEHICLE (GV79&80-REC22) (SAS Label: VINJURED)

This two place numeric value indicates the total number of injured occupants of this towed CDS applicable vehicle or non-towed with air bag deployment. It is derived by totaling the number of occupant assessment records in which the variable NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) has a value of 01-97.

Source: NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).
Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. Non-towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file. If, on all the occupant assessment records in the vehicle, the only codes in OA70 are equal to "99 or 00", then use code "00" (None) for this derived variable.
SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

FRONT/REAR WHEEL DRIVE (GV81-REC22) (SAS Label: DRIVE)

This single place numeric value indicates which wheels of a passenger car are powered. Values are coded as follows:

1 REAR WHEEL DRIVE
2 FRONT WHEEL DRIVE
8 NOT APPLICABLE, NOT A PASSENGER CAR

9 UNKNOWN (FOUR WHEEL DRIVE POTENTIAL)

This variable is derived by scanning a coded table consisting of vehicle make, vehicle model and vehicle model year, to which a "drive" code has been appended.

Source: VEHICLE MODEL YEAR (GV04), VEHICLE MAKE (GV05), VEHICLE MODEL (GV06), BODY TYPE (GV07) and coded table.
Missing Values: None.
SAS Codes: .U for 9 (Unknown).

VIN LENGTH (GV82&83-REC22) (SAS Label: VINLNGTH)

This two place numeric value indicates the number of characters in the Vehicle Identification Number (VIN) as originally recorded. 99 denotes unknown (on the FLAT file).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Values: None.
SAS Codes: .U for 99 (Unknown).

WEIGHT OF THE OTHER VEHICLE (GV84-86;REC22) (SAS Label: OTVEHWGT)

This three place numeric value indicates the weight (in kilograms) of the other vehicle, if the most severe impact is with another CDS applicable vehicle. (This vehicle must be an inspected CDS applicable vehicle, the other vehicle need only be a CDS applicable vehicle). Values are coded as follows:

045	LESS THAN 450 KILOGRAMS
046 - 609	460-6,090 KILOGRAMS
610	6,100 KILOGRAMS OR MORE
998	NOT APPLICABLE (MOST SEVERE IMPACT NOT WITH ANOTHER VEHICLE OR WITH VEHICLE HITTING ITSELF)
999	UNKNOWN
.	NOT COLLECTED

This variable is derived by scanning the OBJECT CONTACTED (EV05) variable from the HIGHEST DELTA "V" as coded on the exterior vehicle record. If the object contacted is another CDS applicable vehicle, then the weight is derived by scanning the VEHICLE CURB WEIGHT (GV43) variable as coded on the general vehicle record for the other CDS applicable vehicle.
Source: OBJECT CONTACTED (EV05), BODY TYPE (GV07) & VEHICLE CURB WEIGHT (GV43).
Missing Values: Exterior vehicle records will be missing and variables GV37-67 on general vehicle records will not be coded for Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99. If the most severe impact is between an inspected CDS applicable vehicle and a non CDS applicable vehicle, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. Exterior vehicle records will be missing for CDS applicable vehicles which are not inspected- BODY TYPE (GV07) equals 01-49 and TYPE OF VEHICLE INSPECTION (GV67) equals 0. Use code "BLANK" (Not Collected) on the Flat file and use

".N" (Not Collected) on the SAS file. If the OBJECT CONTACTED (EV05) variable is blank (non collision event) for an inspected CDS applicable vehicle, then use code 998 (Not Applicable).

SAS Codes: .N for Blank (Not Collected) and .U for 999 (Unknown)

BODY TYPE OF THE OTHER VEHICLE (GV87&88-REC22) (SAS Label: OTBDYTYP)

This two place numeric value indicates the body type of the other vehicle if the most severe impact is with another vehicle. (This vehicle must be an inspected CDS applicable vehicle, the other vehicle may be any vehicle type). If the impact is not with another vehicle, the value is coded as follows:

98 NOT APPLICABLE (MOST SEVERE IMPACT NOT WITH ANOTHER VEHICLE OR WITH VEHICLE HITTING ITSELF)
. NOT COLLECTED

This variable is derived by scanning the OBJECT CONTACTED (EV05) variable from the HIGHEST DELTA "V" as coded on the exterior vehicle record. If the object contacted is another vehicle, then the body type is derived by scanning the BODY TYPE (GV07) variable as coded on the general vehicle record for the other vehicle.

Source: OBJECT CONTACTED (EV05) and BODY TYPE (GV07).
Missing Values: Exterior vehicle records will be missing for:
(1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99;
(2) Not Inspected CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and TYPE OF VEHICLE INSPECTION (GV67) equals 0. For these vehicle types, use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file. If the OBJECT CONTACTED (EV05) variable is blank (non collision event) for an inspected CDS applicable vehicle, then use code 98 (Not Applicable).
SAS Codes: .N for Blank (Not Collected) and .U for 99 (Unknown).

VINA MAKE (GV13-17;REC23) (SAS Label: VINMAKE)

This five place alphanumeric value indicates the National Crime Information Center (NCIC) code for vehicle make. 99999 denotes unknown.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Values: If VINA VEHICLE TYPE is unknown (U), then VIN MAKE will be blank.
SAS Codes: "." for Blank.

VINA MODEL (PASS. VEH.) (GV18-20;REC23) (SAS Label: VINAMOD)

This three place alphanumeric value contains a Polk series code for the model of passenger vehicles. For a listing of these codes please refer to the Polk PC VINA manual.

This variable is derived by the VINA analysis scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA MODEL (PASS. VEH.) will be blank.
SAS Codes: "." for Blank.

VINA SERIES (TRUCKS) (GV21-23;REC23) (SAS Label: SERTR)

This three place alphanumeric value contains a Polk series code. For a listing of these codes please refer to the Polk PC VINA manual.

This variable is derived by the VINA analysis scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Motorcycle (M) or Unknown (U), then VINA SERIES (TRUCKS) will be blank.
SAS Codes: "." for Blank.

VINA BODY TYPE (GV24&25;REC23) (SAS Label: VINBT)

This two place alphanumeric value indicates the vehicle's body type. The applicable codes and their descriptors are listed in the following table:

Body Type Codes

Passenger Vehicles			
AM	Ambulance	UT	Utility **
CB	Cab & Chassis (Luv)	WW	Wide Wheel Wagon
CP	Coupe	2D	Sedan 2 Dr.
CV	Convertible	2F	Formal Hardtop 2 Dr.
HP	Hatchback*	2H (81-03)	Hatchback 2 Dr.
HR	Hearse	2L	Liftback 3 Dr.
HT	Hardtop *	2P	Pillard Hardtop 2 Dr.

LB	Liftback	2T	Hardtop 2 Dr.
LM	Limousine	2W	Wagon 2 Dr.
NB	Notchback	3D	Runabout 3 Dr.
PK	Pickup **	4D	Sedan 4 Dr.
PN	Panel **	4H (81-03)	Hatchback 4 Dr.
RD	Roadster	4L	Liftback 5 Dr.
SB	Sport Hatchback	4P	Pillard Hardtop 4 Dr.
SC	Sport Coupe	4T	Hardtop 4 Dr.
SD	Sedan *	4W	Wagon 4 Dr.
SV	Sport Van	5D	Sedan 5 Dr.
SW	Station Wagon		

* Used only when number of doors is unknown

** To code trucks commonly registered as passenger vehicles

Trucks			
AC	Auto Carrier	MV	Maxi Van
AR	Armored Truck	MY	Motorized Cutaway
BU	Bus	PC	Club Cab Pickup
CB	Chassis and Cab	PD	Parcel Delivery
CC	Conventional Cab	PK	Pickup
CG	Cargo Van	PM	Pickup with Camper mounted on bed
CH	Crew Chassis	PN	Panel
CL	Club Chassis	PS	Super Cab Pickup
CM	Concrete or Transit Mixer	RD	Roadster (Jeep, Jeep Commando)
CR	Crane	SN	Step Van
CS	Super Cab/Chassis Pickup	SP	Sport Pickup
CU	Custom Pickup	ST	Stake or Rack

CV	Convertible (Jeep Commando, Suzuki Samarai, Dodge Dakota)	SV	Sports Van
CW	Crew Pickup	SW	Station Wagon (Jeep Wagonneer, Dodge Sportsman A100, Toyota Landcruiser)
CY	Cargo Cutaway	S1	One Seat
DP	Dump	S2	Two Seat
DS	Tractor Truck (diesel)	TB	Tilt Cab
EC	Extended Cargo Van	TL	Tilt Tandem
ES	Extended Sport Van	TM	Tandem
EV	Ext Van	TN	Tank
EW	Extended Window Van	TR	Tractor Truck (Gasoline)
FB	Flat-bed or Platform	UT	Utility (Blazer, Jimmy, Scout, etc.)
FC	Forward Control	VC	Van Camper
FT	Fire Truck	VD	Display Van
GG	Garbage or Refuse	VN	Van
GL	Gliders	VT	Vanette (including Metro and Handy Van)
GN	Grain	VW	Window Van
HO	Hopper	WK	Tow Truck Wrecker
IC	Incomplete Chassis	WW	Wide Wheel Wagon
IE	Incomplete Ext Van	XT	Travelall
LG	Logger	YY	Cutaway
LL	Suburban & Carry All	2W	2 Dr. Wagon
MH	Motorized Home	4W	4 Dr. Wagon
MP	Multi-purpose	8V	8 Passenger Sport Van

Motorcycles			
AT	All terrain	MY	Mini Cycle

EN	Enduro	RC	Racer
MK	Mini Bike	RS	Road/Street
MM	Mini Moto Cross	RT	Road/Trail
MP	Moped	T	Dirt
MR	Mini Road/Trail	TL	Trail/Dirt
MS	Motor Scooter	TR	Trails
MX	Moto Cross		

This variable is derived by the VINA analysis scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA BODY TYPE will be blank.
SAS Codes: "." for Blank.

VINA ROOF TYPE (GV26;REC23) (SAS Label: ROOF1)

This single place numeric value indicates the type of roof on the vehicle (model years 1985 and later) using the following codes:

1 None/not available
2 Manual sun/moon roof
3 Power sun/moon roof
4 Removable panels
5 Removable roof
6 retractable roof panel
7 Other/unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ROOF TYPE will be blank.
SAS Codes: "." for Blank.

VINA ROOF TYPE (OPTIONAL 1) (GV27;REC23) (SAS Label: ROOF2)

This single place numeric value indicates the optional type of roof for the vehicle (model year 1985 and later) using the following codes:

1 None/not available
2 Manual sun/moon roof
3 Power sun/moon roof
4 Removable panels
5 Removable roof
6 retractable roof panel
7 Other/unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ROOF TYPE (OPTIONAL 1) will be blank.
SAS Codes: "." for Blank.

VINA ROOF TYPE (OPTIONAL 2) (GV28;REC23) (SAS Label: ROOF3)

This single place numeric value indicates the an optional type of roof for the vehicle (model year 1985 and later) using the following codes:

1 None/not available
2 Manual sun/moon roof
3 Power sun/moon roof
4 Removable panels
5 Removable roof
6 retractable roof panel
7 Other/unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ROOF TYPE (OPTIONAL 2) will be blank.
SAS Codes: "." for Blank.

VINA ANTI-LOCK BRAKES (GV29;REC23) (SAS Label: ANTILOCK)

This single place numeric value indicates if anti-lock brakes are available in the vehicle (model year 1985 and later) and if so, which axles have the system (if known). The following codes are used:

1 Not Available
2 4 wheel standard
3 Rear only standard
4 ABS standard, wheels unknown
5 4 wheel optional
6 Rear only optional
7 ABS optional, wheels unknown
9 Unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ANTI-LOCK BRAKES will be blank.
SAS Codes: "." for Blank.

VINA FRONT WHEEL DRIVE (GV30;REC23) (SAS Label: FRTWHLDR)

This single place alphanumeric value indicates if the vehicle (model year 1985 and later) is front wheel drive using the following codes.

N No
Y Yes
* Some vehicles of this series

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA FRONT WHEEL DRIVE will be blank.
SAS Codes: "." for Blank.

VINA FOUR WHEEL DRIVE (GV31;REC 23) (SAS Label: FOURWHDR)

This single place alphnumeric value indicates if the vehicle (model year 1985 and later) is four wheel drive using the following codes.

N No
Y Yes
* Some vehicles of this series

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA FOUR WHEEL DRIVE will be blank.
SAS Codes: "." for Blank.

VINA RESTRAINT TYPE (GV32;REC23) (SAS Label: RESTYPE)

This single place alphanumeric value indicates the actual presence of the restraint type in the vehicle. The code cannot be used to determine whether the restraint is an optional or a standard feature of the vehicle. The codes are valid for model years 1985 to the current model year. The following codes are used:

A	Active (manual) belts
B	Driver front air bag/passenger side belt unknown
C	Dual front air bags/belt system unknown
D	Dual front air bag/passenger side passive belts
E	Dual front air bags/active belts
F	Dual front air bags/passive belts
G	Dual air bags front and side/belts unknown
H	Dual air bags front, head and sides/belts unknown
I	Dual air bags front, head and sides/passive belts
J	Dual air bags front and sides/passive belts
K	Dual air bags front and sides/active belts
L	Dual air bags front, head and sides/active belt
M	Driver front air bag/passenger side active belt
P	Passive (automatic) belts

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA RESTRAINT TYPE will be blank.
SAS Codes: "." for Blank.

VINA CARBURETION (PASS VEH) (GV 33;REC23) (SAS Label: CARBUR)

This single place alphanumeric value contains the number of barrels for the engine or a descriptive code indicating that the engine is high performance, fuel-injected, turbo, or electronically controlled. The codes are for passenger vehicles only. The codes and their meanings are listed in the following table:

Carburetion Codes and Meanings		
Code	Number of BBL	Description of Engine
(a number)	Number specified by the code	Number of barrels for the engine (e.g. 4)
A*	1	Lower HP
B*	1	Higher HP
C	1	Turbo
D*	1	Turbo Low HP
E*	1	Turbo High HP
F	Unknown	A fuel injection rating code used when the manufacturer's specifications do not show the number of barrels.
G	1	Electronically controlled
H	Unknown	A high performance rating code used when the manufacturer's specifications do not show the number of barrels.
J*	2	Lower HP
K*	2	Higher HP
L	2	Turbo
M*	2	Turbo Low HP
N*	2	Turbo High HP
P	2	Electronically controlled
Q	Unknown	Electronically controlled
R	4	Electronically controlled
S*	4	Lower HP
T	1,2 or 4	Turbo Fuel Injected
U*	4	Higher HP
V	4	Turbo
W*	4	Turbo Low HP
X*	4	Turbo High HP

Y	Unknown	Turbo
Z	Unknown	Super Charged

*NOTE: These values are coded only when necessary to apply correct insurance symbol.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is equal to Trucks (T), Motorcycle (M) or unknown (U), then VINA CARBURETION (PASS VEH) will be blank.
SAS Codes: "." for Blank.

VINA FUEL CODE (GV34;REC23) (SAS Label: FUELCODE)

This single place alphanumeric value indicates the type of fuel suggested by the manufacturer for the engine. The descriptive codes and their meanings are as follows:

D Diesel
E Electric
F Flexible Fuel
G Gas
N Compressed Natural Gas
P Propane

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA FUEL CODE will be blank.
SAS Codes: "." for Blank.

VINA WEIGHT CODE (TRUCKS) (GV35;REC23) (SAS Label: WGTCDTR)

This single place numeric value indicates the manufacturer's Gross Vehicle Weight (GVW) rating. The descriptive codes and their meanings are as follows:

1 6,000 and less
2 6,001 - 10,000
3 10,001 - 14,000
4 14,001 - 16,000
5 16,001 - 19,500
6 19,501 - 26,000
7 26,001 - 33,000

8 33,001 - and more
9 weight unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Motorcycle (M) or unknown (U), then VINA WEIGHT CODE (TRUCKS) will be blank.
SAS Codes: "." for Blank.

VINA VEHICLE TYPE (GV36;REC23) (SAS Label: VEHTYPE)

This single place alphanumeric value indicates the type of vehicle using the following values:

P Passenger Vehicle
T Truck
M Motorcycle
U Unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: None.
SAS Codes: "." for Blank.

VINA WHEELS/DRIVING WHEELS (TRUCKS) (GV37&38;REC23) (SAS Label: WHLDRWHEL)

This two place numeric value contains information about truck wheels. The first position contains the total number of wheels. The second position contains the number of driving wheels.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Motorcycle (M) or unknown (U), then VINA WHEELS/DRIVING WHEELS (TRUCKS) will be blank.
SAS Codes: "." for Blank.

VINA DAYLIGHT RUN LIGHTS (GV39;REC23) (SAS Label: DAYRUNLT)

This single place alphanumeric value indicates the availability of Daytime Running Lights. Values are coded as follows:

S Standard
O Optional
N Not Available
U Unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA DAYLIGHT RUN LIGHTS will be blank.
SAS Codes: "." for Blank.

VINA BASE SHIPPING WEIGHT (PASS VEH & M/C) (GV40-43;REC23) (SAS Label: VEHWGT)

This four place numeric value indicates the base shipping weight (dry weight) of passenger vehicles and motorcycles.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA BASE SHIPPING WEIGHT (PASS VEH & M/C) will be blank.
SAS Codes: "." for Blank.

VINA MOTORCYCLE CC's ENGINE DISPLACEMENT (GV44-47;REC23) (SAS Label: MCYCLDS)

This four place numeric value indicates the manufacturer's cubic centimeter (CC) displacement of the model.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Truck (T) or unknown (U), then VINA MOTORCYCLE CC's ENGINE DISPLACEMENT will be blank.
SAS Codes: "." for Blank.

VINA MODEL YEAR (GV48-51;REC23) (SAS Label: VINMODYR)

This four place numeric value indicates the vehicle's model year.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).
Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA MODEL YEAR will be blank.
SAS Codes: "." for Blank.

MAXIMUM KNOWN OCCUPANT A.I.S. (OA115) (SAS Label: MAIS)

This single place numeric value indicates the single most severe injury level reported for this occupant of a towed CDS applicable vehicle or a non-towed with air bag deployment using the following order of codes:

6	MAXIMUM (UNTREATABLE) INJURY
5	CRITICAL INJURY
4	SEVERE INJURY
3	SERIOUS INJURY
2	MODERATE INJURY
1	MINOR INJURY
7	INJURY, UNKNOWN SEVERITY
9	UNKNOWN IF INJURED
0	NOT INJURED

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on the occupant injury record. If this occupant does not have an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

Source: A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).
Missing Values: None (if you do not have an occupant injury record, you will have an occupant assessment record for each occupant of a towed CDS applicable vehicle). Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9. Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2)Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10)

equals 0 or 9 and NUMBER OF REPORTED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00.
SAS Codes: .U for 9 (Unknown).

OCCUPANT I.S.S. (OA116-117) (SAS Label: ISS)

This two place numeric value provides an index score indicating the relative severity of overall injury to the individual vehicle occupant of a towed CDS applicable vehicle or a non-towed with air bag deployment using the following order of codes:

6	MAXIMUM (UNTREATABLE) INJURY
5	CRITICAL INJURY
4	SEVERE INJURY
3	SERIOUS INJURY
2	MODERATE INJURY
1	MINOR INJURY
0	NOT INJURED

It is derived by scanning the BODY REGION (OI006...OI096) and the A.I.S. SEVERITY (OI010...OI100) variables on the occupant injury record. The I.S.S. score is calculated by adding the squares of the highest A.I.S. SEVERITY entries for each of the three most severely injured body regions. For A.I.S. Code "7" (Injury, Unknown Severity), use code "0". If the occupant injury record is missing, scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the occupant assessment record. If the codes in OA70 are "97, 99 or 00", then use code "0". An example of calculating an I.S.S. score is the following:

> An Occupant suffered serious injury (A.I.S.=3) to the legs (Body Region 5), moderate injury (A.I.S.=2) to the pelvic area (Body Region 4) and moderate to minor injuries elsewhere (A.I.S.=2). The resulting I.S.S. is the sum of the squares of these three A.I.S. Severity scores: (3**2) + (2**2) + (2**2) or 17.

Source: BODY REGION (OI006...OI096) and A.I.S. SEVERITY OI010...OI100).
Missing Values: None (if you do not have an occupant injury record, you will have an occupant assessment record for each occupant of a towed CDS applicable vehicle). Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9. Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2)Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10)

equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00.
SAS Codes: None.

BODY REGION - AIS-85 (OI33) (SAS Label: BODYREG)

This single place alphanumeric value captures the body regions as defined in the 1988 Injury Coding Manual in accordance with the coding conventions of AIS-85.

Values are coded as follows:

M Abdomen
Q Ankle - foot
A Arm (upper)
B Back - thoracolumbar spine
C Chest
E Elbow
F Face
R Forearm
H Head - skull
U Injured, unknown region
K Knee
L Leg (lower)
Y Lower limb (s) (whole or unknown part)
N Neck - cervical spine
P Pelvic - hip
S Shoulder
T Thigh
X Upper limb (s) (whole or unknown part
O Whole body
W Wrist - hand

This variable is derived by scanning a coded table which converts AIS-90 injury codes to OIC (AIS-85) codes.

Source: BODY REGION (AIS-90) (OI006...OI096), TYPE OF ANATOMIC STRUCTURE (OI007...OI097), SPECIFIC ANATOMIC STRUCTURE (OI008...OI098), LEVEL OF INJURY (OOI009..OI099) and coded table.
Missing Values: Occupant injury records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00.
SAS Codes: None

LESION - AIS-85 (OI34) (SAS Label: LESION)

This single place alphanumeric value captures the lesions as defined in the 1988 Injury Coding Manual in accordance with the coding conventions of AIS-85.

Values are coded as follows:

A Abrasion	Z Fracture and dislocation
M Amputation	U Injured, unknown lesion
V Avulsion	L Laceration
B Burn	O Other
K Concussion	P Perforation, puncture
C Contusion	R Rupture
N Crush	S Sprain
G Detachment, separation	T Strain
D Dislocation	E Total severence, transection
F Fracture	

This variable is derived by scanning a coded table which converts AIS-90 injury codes to OIC (AIS-85) codes.

Source: BODY REGION (AIS-90) (OI006...OI096), TYPE OF ANATOMIC STRUCTURE (OI007...OI097), SPECIFIC ANATOMIC STRUCTURE (OI008...OI098), LEVEL OF INJURY (OOI009..OI099) and coded table.
Missing Values: Occupant injury records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00.
SAS Codes: None

SYSTEM ORGAN - AIS-85 (OI35) (SAS Label: SYSORG)

This single place alphanumeric value captures the system organs as defined in the 1988 Injury Coding Manual in accordance with the coding conventions of AIS-85.

Values are as follows:

W All systems in region	L Liver
A Arteries - veins	M Muscles
B Brain	N Nervous system
D Digestive	P Pulmonary - lungs
E Ears	R Respiratory
O Eye	S Skeletal
H Heart	C Spinal Cord
U Injured, unknown system	Q Spleen
I Integumentary	T Thyroid, other endocrine gland
J Joints	G Urogenital
K Kidneys	V Vertebrae

This variable is derived by scanning a coded table which converts AIS-90 injury codes to OIC (AIS-85) codes.

Source: BODY REGION (AIS-90) (OI006...OI096), TYPE OF ANATOMIC STRUCTURE (OI007...OI097), SPECIFIC ANATOMIC STRUCTURE (OI008...OI098), LEVEL OF INJURY (OOI009..OI099) and coded table.
Missing Values: Occupant injury records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles with no air bag deployment-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9, AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL (GV41) equals 0, 1, 3, 7 or 9 and AIR BAG DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (GV42) equals 0, 5, 7 or 9; (3) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00.
SAS Codes: None

SECTION 5
SEQUENTIAL ANALYTICAL FILE RECORD LAYOUTS

ACCIDENT RECORD

1 PSU NUMBER
2
3
4 CASE NUMBER
5
6
7 RECORD NUMBER
(11)
8
9 VERSION NUMBER
10
11 NUMBER OF GENERAL
12 VEHICLE FORMS
SUBMITTED
13 MONTH OF
ACCIDENT
14
15
16
17 YEAR OF ACCIDENT
18
19
20
21
22 TIME OF ACCIDENT
23
24
25 ADMINISTRATIVE USE
26 PEDESTRIAN STUDY
27 IMPACT FIRE
28 TRUCK UNDERRIDE
29 RABSS
30
31 NUMBER OF RECORDED
32 EVENTS IN THIS ACCIDENT
33 MAXIMUM TREATMENT
34 MAXIMUM KNOWN AIS
35 NUMBER OF SERIOUSLY
36 INJURED OCCUPANTS
37 NUMBER OF INJURED OCCUPANTS
38
39 ALCOHOL INVOLVED
40 DAY OF WEEK OF ACCIDENT
41

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42
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49
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-
50
51
52
53
54
55
56
57
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-
58
59
60
61  RATIO INFLATION FACTOR
62
63
64
65
------------------------------
-
66  DRUG INVOLVED
------------------------------
-
67  MANNER OF COLLISION
------------------------------
-
68  PSU STRATA
69
------------------------------
-
```

1	PSU NUMBER
2	
3	
4	CASE NUMBER
5	
6	
7	RECORD NUMBER (12)
8	
9	VERSION NUMBER
10	
11	ACCIDENT EVENT
12	SEQUENCE NUMBER
13	VEHICLE NUMBER (1)
14	
15	CLASS OF VEHICLE (1)
16	
17	GENERAL AREA OF DAMAGE (1)
18	VEHICLE NUMBER (2) OR
19	OBJECT CONTACTED
20	CLASS OF VEHICLE (2)
21	
22	GENERAL AREA OF DAMAGE (2)

GENERAL VEHICLE RECORD

```
--------------------------
 1  PSU NUMBER
    2
--------------------------
 3
    4  CASE NUMBER
    5
       6
       -----------------
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 7  RECORD NUMBER (21)
    8
--------------------------
 9  VERSION NUMBER
10
--------------------------
11  VEHICLE NUMBER
12
 -------------------------
-
13  VEHICLE MODEL YEAR
14
15
16
--------------------------
17  VEHICLE MAKE
18
--------------------------
19
20  VEHICLE MODEL
21
 -------------------------
-
22  BODY TYPE
23
 -------------------------
-
24
25
26
27
28  VEHICLE IDENTIFICATION
29          NUMBER
30
31
32
33
 -------------------------
-
34
35
36
37
38
39
40
--------------------------
41  VEHICLE SPECIAL USE
--------------------------
42  VEHICLE DISPOSITION
--------------------------
43  TRAVEL SPEED
44
45
--------------------------
46  SPEED LIMIT
47
48
 -------------------------
-
49  ALCOHOL PRESENCE
 -------------------------
-  50  ALCOHOL TEST RESULT
51
--------------------------
52  DRUG PRESENCE
--------------------------
53  OTHER DRUG SPECIMEN
TEST  -------------------------- ----------------------------
--
54
55
56  DRIVER'S ZIP CODE
57
58
--------------------------------
59 DRIVER'S RACE
--------------------------------
60  RELATION TO INTERCHANGE
--------------------------------
61  TRAFFICWAY FLOW
--------------------------------
62  NUMBER OF TRAVEL LANES
--------------------------------
63  ROADWAY ALIGNMENT
--------------------------------
64  ROADWAY PROFILE
--------------------------------
65  ROADWAY SURFACE TYPE
--------------------------------
66  ROADWAY SURFACE CONDITION
--------------------------------
67  LIGHT CONDITIONS
--------------------------------
68  ATMOSPHERIC CONDITIONS
--------------------------------
69  TRAFFIC CONTROL DEVICE
--------------------------------
70  TRAF. CONTROL FUNCTIONING
--------------------------------
71  DRIVER'S DISTRACTION/
72  INATTENTION TO DRIVING
--------------------------------
73  PRE-EVENT MOVEMENT
74
--------------------------------
75  CRITICAL PRECRASH EVENT
76
--------------------------------
77  ATTEMPTED
78  AVOIDANCE MANUEVER
--------------------------------
79  PRE-IMPACT STABILITY
--------------------------------
80  PRE-IMPACT LOCATION
--------------------------------
81  ACCIDENT TYPE
82
--------------------------------
83  VIN CHECK
--------------------------------
```

GENERAL VEHICLE FORM
(CONTINUED)

---

1 PSU NUMBER
2

3
4 CASE NUMBER
5
6

---

7 RECORD NUMBER (22)
8

---

9 VERSION NUMBER
10

---

11 VEHICLE NUMBER
12

---

13 DRIVER PRESENCE

---

14 NUMBER OF OCCUPANTS
15 THIS VEHICLE

---

16 NUMBER OF OCCUPANT
17 FORMS SUBMITTED

---

18 AOPS VEHICLE

---

19 BAG DEPLOYMENT-1ST SEAT FR

---

20 BAG DEPLOYMENT-0THER

---

21 VEHICLE CURB WEIGHT
22
23

---

24 VEHICLE CARGO WEIGHT
25
26

---

27 ROLLOVER
28

---

29 ROLLOVER INITIATION TYPE

---

31 LOCATION OF ROLLOVER INIT.

---

32 ROLLOVER
33 OBJECT CONTACTED

---

34 LOCATION OF TRIPPING FORCE

---

35 DIRECTION OF INITIAL ROLL

---

36 FRONT OVERRIDE/UNDERRIDE

---

37 REAR OVERRIDE/UNDERRIDE

---

38 HEADING ANGLE FOR
39 THIS VEHICLE
40

---

41 HEADING ANGLE FOR
42 OTHER VEHICLE
43

---

44 TOWED TRAILING UNIT

---

45 DOC. OF TRAJECTORY DATA

---

46 CONDITION OF TREE OR POLE

---

47 BASIS FOR TOTAL DELTA V
48

49
50 TOTAL DELTA V
51

52
53 LONGITUDINAL COMPONENT OF
54 DELTA V
55

56
57 LATERAL COMPONENT OF
58 DELTA V
59

60
61 ENERGY ABSORPTION
62
63

64
65 IMPACT SPEED
66

---

67 CONFIDENCE IN RECONS. PGM.

---

68 BARRIER EQUIVALENT SPEED
69
70

---

71 ESTIMATED HIGHEST DELTA V

---

72 TYPE OF VEHICLE INSPECTION

---

73 DELTA V EVENT NUMBER
74

---

75 MAXIMUM TREATMENT

---

76 MAXIMUM KNOWN AIS

---

77 NUMBER OF SERIOUSLY INJURED
78 IN THIS VEHICLE

---

79 NUMBER OF INJURED
80 IN THIS VEHICLE

---

81 FRONT/REAR WHEEL DRIVE

---

82 VIN LENGTH
83

---

84 WEIGHT OF THE
85 OTHER VEHICLE
86

---

87 BODY TYPE OF
88 THE OTHER VEHICLE

GENERAL VEHICLE FORM
(CONTINUED)

1 PSU NUMBER 2	35 VINA WEIGHT CODE (TRUCKS)
	36 VINA VEHICLE TYPE
3 4 CASE NUMBER 5 6	37 VINA WHEELS/DRIVING 38 WHEELS (TRUCKS) 39 VINA DAYLIGHT RUN LIGHTS
7 RECORD NUMBER (23) 8	40 VINA BASE SHIPPING WEIGHT 41 (PASS VEH & M/C) 42 43
9 VERSION NUMBER 10	44 VINA MOTORCYCLE CC's 45 ENGINE DISPLACEMENT 46 47
11 VEHICLE NUMBER 12	
13 14 15 VINA MAKE 16 17	
18 VINA MODEL 19 (PASS. VEH.) 20	
21 VINA SERIES 22 (TRUCKS) 23	
24 VINA BODY TYPE 25	
26 VINA ROOF TYPE	
27 VINA ROOF TYPE (OPTION 1)	
28 VINA ROOF TYPE (OPTION 2)	
29 VINA ANTI-LOCK BRAKES	
30 VINA FRONT WHEEL DRIVE	
31 VINA FOUR WHEEL DRIVE	
32 VINA RESTRAINT TYPE	
33 VINA CARBURETION (PASSENGER VEHICLE)	
34 VINA FUEL CODE	

```
----------------------------
----
48  VINA MODEL YEAR
49
50
51
----------------------------
----
```

EXTERIOR VEHICLE FORM

```
--------------------------
-
 1   PSU NUMBER
  2
  ------------------------
---
 3
  4  CASE NUMBER
   5
    6
    ----------------------
-----
 7  RECORD NUMBER (31)
  8
  ------------------------
---
 9  VERSION NUMBER
10
--------------------------
-
11  VEHICLE NUMBER
 12
  ------------------------
---
13  ACCIDENT SEQUENCE - 1
 14
  ------------------------
---
15  OBJECT
 16  CONTACTED - 1
  ------------------------
---
17  DIRECTION
 18  OF FORCE - 1
  ------------------------
---
19  DEFORMATION LOCATION -
1  ------------------------
----
20  LONG./LATERAL LOCATION
1 ------------------------
---
21  VERT./LATERAL LOCATION
1  ------------------------
----
22  TYPE OF DAMAGE DIST. -
1  ------------------------
----
23  DEFORMATION
 24  EXTENT - 1
  ------------------------
---
25  ACCIDENT SEQUENCE - 2
 26
  ------------------------
---
27  OBJECT
 28  CONTACTED - 2
  ------------------------
---
29  DIRECTION
 30  OF FORCE - 2
  ------------------------
---
31  DEFORMATION LOCATION -
2  ------------------------
----
32  LONG./LATERAL LOCATION
2  ------------------------
----
33  VERT./LATERAL LOCATION
2  ------------------------
----
34  TYPE OF DAMAGE DIST. -
2  ------------------------
----
35  DEFORMATION
 36  EXTENT - 2
  ------------------------
---
37  CRASH DAMAGE DATA FOR
 38  HIGHEST DELTA "V" - L
  39
   ------------------------
----
40  CRASH DAMAGE DATA FOR
 41  HIGHEST DELTA "V" - C1
  42
   ------------------------
----
43  CRASH DAMAGE DATA FOR
 44  HIGHEST DELTA "V" - C2
  45
   ------------------------
----
--------------------------
-
46  CRASH DAMAGE DATA FOR
 47  HIGHEST DELTA "V" - C3
  48
--------------------------
-
49  CRASH DAMAGE DATA FOR
50  HIGHEST DELTA "V" - C4
51
--------------------------
-
52  CRASH DAMAGE DATA FOR
53  HIGHEST DELTA "V" - C5
54
--------------------------
-
55  CRASH DAMAGE DATA FOR
56  HIGHEST DELTA "V" - C6
57
--------------------------
-
58  CRASH DAMAGE DATA FOR
59  HIGHEST DELTA "V" - D
 60
61
--------------------------
-
62  CRASH DAMAGE DATA
63  FOR 2ND HIGHEST
 64  DELTA “V" - L
--------------------------
-
65  CRASH DAMAGE DATA FOR
66  2ND HIGHEST DELTA "V"-
C1
67
--------------------------
-
68  CRASH DAMAGE DATA FOR
69  2ND HIGHEST DELTA "V"-
C2
70
--------------------------
-
71  CRASH DAMAGE DATA FOR
72  2ND HIGHEST DELTA "V"-
C3
73
--------------------------
-
74  CRASH DAMAGE DATA FOR
75  2ND HIGHEST DELTA "V"-
C4
76
--------------------------
-
77  CRASH DAMAGE DATA FOR
78  2ND HIGHEST DELTA "V"-
C5
79
--------------------------
-
80  CRASH DAMAGE DATA FOR
81  2ND HIGHEST DELTA "V"-
C6
82
--------------------------
-
83  CRASH DAMAGE DATA FOR
84  2ND HIGHEST DELTA "V"-
D
85
86
```

-
87
88 UNDEFORMED END WIDTH
89

-
90
91 DIRECT DAMAGE WIDTH
92

-
93
94 ORIGINAL WHEELBASE
95

-
96 ORIGINAL AVERAGE
97 TRACK WIDTH
98

-
99 CDCS DOCUMENTED-NOT
  CODED

-

-
100 VEHICLE DISPOSITION
      (RES.)

-
101 ALTERED VEHICLE

-
102 FIRE OCCURRENCE

-
103 ORIGIN OF FIRE

-
104 FILLER CAP TANK-1

-
105 FILLER CAP TANK-2

-
106 TYPE OF TANK-1

-
107 TYPE OF TANK-2

-
108 LOCATION TANK-1

-
109 LOCATION TANK-2

-
110 DAMAGE TANK-1

-
111 DAMAGE TANK-2

-
112 LEAKAGE TANK-1

-
113 LEAKAGE TANK-2

-
114 FUEL TYPE TANK-1
115

-
116 FUEL TYPE TANK-2
117

-
118 MORE THAN TWO TANKS

-

---
1 PSU NUMBER
2

-
3
4 CASE NUMBER
5
6

---
7 RECORD NUMBER (41)
8

-
9 VERSION NUMBER
10
---
11 VEHICLE NUMBER
12
---
13 PASSENGER COMPARTMENT
14 INTEGRITY
---
15 DOOR/GATE/HATCH
OPENING- LF
---
16 DOOR/GATE/HATCH
OPENING-RF
---
17 DOOR/GATE/HATCH
OPENING-LR
---
18 DOOR/GATE/HATCH
OPENING-RR
---
19 DOOR/GATE/HATCH
OPENING-TG
---
20 DOOR/GATE/HATCH DAMAGE-
LF
---
21 DOOR/GATE/HATCH DAMAGE-
RF
---
22 DOOR/GATE/HATCH DAMAGE-
LR
---
23 DOOR/GATE/HATCH DAMAGE-
RR
---
24 DOOR/GATE/HATCH DAMAGE-
TG
---
25 TYPE OF GLAZING-WS
---
26 TYPE OF GLAZING-LF
---
27 TYPE OF GLAZING-RF
---
28 TYPE OF GLAZING-LR
---
29 TYPE OF GLAZING-RR
---
30 TYPE OF GLAZING-BL
---
31 TYPE OF GLAZING-RO
---
32 TYPE OF GLAZING-OT
---
33 PRECRASH GLAZING
STATUS-WS
---
34 PRECRASH GLAZING STATUS-LF
---
35 PRECRASH GLAZING STATUS-RF
---
36 PRECRASH GLAZING STATUS-LR
---
37 PRECRASH GLAZING STATUS-RR
---
38 PRECRASH GLAZING STATUS-BL
---
39 PRECRASH GLAZING STATUS-RO
---
40 PRECRASH GLAZING STATUS-OT
---
41 GLAZING DAMAGE - IMPACT - WS
---
42 GLAZING DAMAGE - IMPACT - LF
---
43 GLAZING DAMAGE - IMPACT - RF
---
44 GLAZING DAMAGE - IMPACT - LR
---
45 GLAZING DAMAGE - IMPACT - RR
---
46 GLAZING DAMAGE - IMPACT - BL
---
47 GLAZING DAMAGE - IMPACT - RO
---
48 GLAZING DAMAGE - IMPACT - OT
---
49 GLAZING DAMAGE - CONTACT -WS
---
50 GLAZING DAMAGE - CONTACT -LF
---
51 GLAZING DAMAGE - CONTACT -RF
---
52 GLAZING DAMAGE - CONTACT -LR
---
53 GLAZING DAMAGE - CONTACT -RR
---
54 GLAZING DAMAGE - CONTACT -BL
---
55 GLAZING DAMAGE - CONTACT -RO
---
56 GLAZING DAMAGE - CONTACT -OT

INTERIOR VEHICLE FORM
(CONTINUED)

1 PSU NUMBER	27 INTRUDING COMPONENT-3RD	49 LOCATION OF INTRUSION - 7TH
2	28	50
3	29 MAGNITUDE OF INTRUSION-3RD	51 INTRUDING COMPONENT - 7TH
4 CASE NUMBER	30 CRUSH DIRECTION-3RD	52
5	31 LOCATION OF INTRUSION-4TH	53 MAGNITUDE OF INTRUSION - 7TH
6	32	54 CRUSH DIRECTION - 7TH
7 RECORD NUMBER (42)	33 INTRUDING COMPONENT-4TH	55 LOCATION OF INTRUSION - 8TH
8	34	56
9 VERSION NUMBER	35 MAGNITUDE OF INTRUSION-4TH	57 INTRUDING COMPONENT - 8TH
10	36 CRUSH DIRECTION-4TH	58
11 VEHICLE NUMBER	37 LOCATION OF INTRUSION-5TH	59 MAGNITUDE OF INTRUSION - 8TH
12	38	60 CRUSH DIRECTION - 8TH
13 LOCATION OF INTRUSION-1ST	39 INTRUDING COMPONENT-5TH	61 LOCATION OF INTRUSION - 9TH
14	40	62
15 INTRUDING COMPONENT-1ST	41 MAGNITUDE OF INTRUSION-5TH	63 INTRUDING COMPONENT - 9TH
16	42 CRUSH DIRECTION-5TH	64
17 MAGNITUDE OF INTRUSION-1ST	43 LOCATION OF INTRUSION-6TH	65 MAGNITUDE OF INTRUSION - 9TH
18 CRUSH DIRECTION-1ST	44	66 CRUSH DIRECTION - 9TH
19 LOCATION OF INTRUSION-2ND	45 INTRUDING COMPONENT-6TH	67 LOCATION OF INTRUSION - 10TH
20	46	68
21 INTRUDING COMPONENT-2ND	47 MAGNITUDE OF INTRUSION - 6TH	69 INTRUDING COMPONENT - 10TH
22	48 CRUSH DIRECTION - 6TH	70
23 MAGNITUDE OF INTRUSION-2ND		71 MAGNITUDE OF INTRUSION-10TH
24 CRUSH DIRECTION-2ND		72 CRUSH DIRECTION - 10TH
25 LOCATION OF INTRUSION-3RD		73 STEERING COLUMN TYPE
26		74
		75
		76
		77
		78
		79
		80

81

82

83

84

85 TILT STEERING COLUMN ADJ.

86 TELESCOPING STEER COL ADJ.

87 STEERING RIM/SPOKE
88 DEFORMATION

89 LOCATION OF STEERING
90 RIM/SPOKE DEFORMATION

91 ODOMETER READING
92
93

94 INSTRUMENT PANEL DAMAGE

95 TYPE KNEE BOLSTER COVERING

96 KNEE BOLSTERS DEFORMED

97 GLOVE COMPARTMENT DOOR
OPEN

98 ADAPTIVE DRIVING EQUIPMENT

OCCUPANT ASSESSMENT FORM

1 PSU NUMBER
2
3
4 CASE NUMBER
5
6
7 RECORD NUMBER (51)
8
9 VERSION NUMBER
10
11 VEHICLE NUMBER
12
13 OCCUPANT NUMBER
14
15 OCCUPANT'S AGE
16
17 OCCUPANT'S SEX
18 OCCUPANT'S HEIGHT
19
20
21 OCCUPANT'S WEIGHT
22
23
24 OCCUPANT’S ROLE
25 OCCUPANT’S SEAT POSITION
26
27 OCCUPANT’S POSTURE

28 EJECTION
29 EJECTION AREA
30 EJECTION MEDIUM
31 MEDIUM STATUS
32 ENTRAPMENT
33 OCCUPANT MOBILITY
34 MANUAL BELT AVAILITY
35 MANUAL BELT USE
36
37 PROPER USE OF MANUAL BELT
38 MANUAL BELT FAILURE
39 SHOULDER BELT ANCHORAGE ADJ
40 AUTOMATIC BELT AVAILABILITY
41 AUTOMATIC BELT USE
42 AUTOMATIC BELT TYPE
43 PROPER USE - AUTOMATIC BELT
44 AUTOMATIC BELT FAILURE MODE
45 POLICE REPORTED BELT USE
46 POLICE REPORTED AIR BAG USE

47 AIR BAG AVAILABILITY-FRONT
48 AIR BAG DEPLOYMENT-FRONTAL
49 AIR BAG AVAILABILITY-OTHER
50 AIR BAG DEPLOYMENT - OTHER
51 DID AIR BAG FAIL?
52 VEHICLE IN PREVIOUS ACC.?
53 TYPE OF AIR BAG
54 PRIOR MAINTENANCE ON BAG?
55 AIR BAG DEPLOYMENT
56 ACCIDENT EVENT SEQUENCE NO.
57 CDC FOR AIR BAG DEPLOYMENT
58 LONGITUDINAL COMPONENT OF
59 DELTA “V” FOR AIR BAG
60 DEPLOYMENT IMPACT
61
62 DID AIR BAG FLAPS OPEN?
63 WERE AIR BAG FLAPS DAMAGED?
64 WAS THERE DAMAGE TO
65 THE AIR BAG?
66 SOURCE OF AIR BAG DAMAGE
67
68 WAS THE AIR BAG TETHERED?
69 DID AIR BAG HAVE VENTPORTS?
70 AIR BAG CONTACT BY OTH OCC?
71 WAS OCC. WEARING EYE-WEAR?
72 HEAD REST. TYPE/DAMAGE
73 SEAT TYPE
74
75 SEAT ORIENTATION

76 SEAT TRACK POSITION-PRIOR

77 SEAT BACK INCLINE
78 PRIOR AND POST IMPACT

79 SEAT PERFORMANCE

80 CHILD SAFETY SEAT
81 MAKE/MODEL
82

83 TYPE OF CHILD SEAT

84 CHILD SAFETY SEAT
85 ORIENTATION

86 CHILD SAFETY SEAT
87 HARNESS USAGE

88 CHILD SAFETY SEAT
89 SHIELD USAGE

90 CHILD SAFETY SEAT
91 TETHER USAGE

92 INJURY SEVERITY

93 TREATMENT - MORTALITY

94 TYPE OF MEDICAL FACILITY

95 HOSPITAL STAY
96

97 WORKING DAYS LOST
98

99 TIME TO DEATH
100

101 1ST MEDICALLY REPORTED
102 CAUSE OF DEATH

103 2ND MEDICALLY REPORTED
104 CAUSE OF DEATH

105 3RD MEDICALLY REPORTED
106 CAUSE OF DEATH

107 NUMBER OF
RECORDEDINJURIES
108 FOR THIS OCCUPANT

109 GLASGOW SCORE
110

111 BLOOD GIVEN

112 ABG BICARBONATE
113

114 BELT USE DETERMINATION

115 MAXIMUM KNOWN AIS

116 INJURY SEVERITY SCORE
117

1	PSU NUMBER
2	
3	
4	CASE NUMBER
5	
6	
7	RECORD NUMBER (61)
8	
9	VERSION NUMBER
10	
11	VEHICLE NUMBER
12	
13	OCCUPANT NUMBER
14	
15	INJURY NUMBER
16	
17	SOURCE OF INJURY DATA
18	BODY REGION - AIS90
19	TYPE OF ANATOMIC STRUCTURE
20	SPECIFIC ANATOMIC STRUCTURE
21	
22	LEVEL OF INJURY
23	
24	AIS SEVERITY
25	ASPECT - AIS90
26	INJURY SOURCE
27	
28	
29	CONFIDENCE LEVEL
30	DIRECT/INDIRECT INJURY
31	OCCUPANT AREA
32	INTRUSION NUMBER
33	BODY REGION - AIS85
34	LESION - AIS85
35	SYSTEM ORGAN - AIS85

TYPE ACCIDENT FORM

```
--------------------------------
1   PSU NUMBER
2
--------------------------------
3
4   CASE NUMBER
5
6
--------------------------------
7   RECORD NUMBER (66)
8
--------------------------------
9   VERSION
10
--------------------------------
11  LINE NUMBER
12
--------------------------------
13
.
.
.   TEXT66
.
.
92
--------------------------------
```

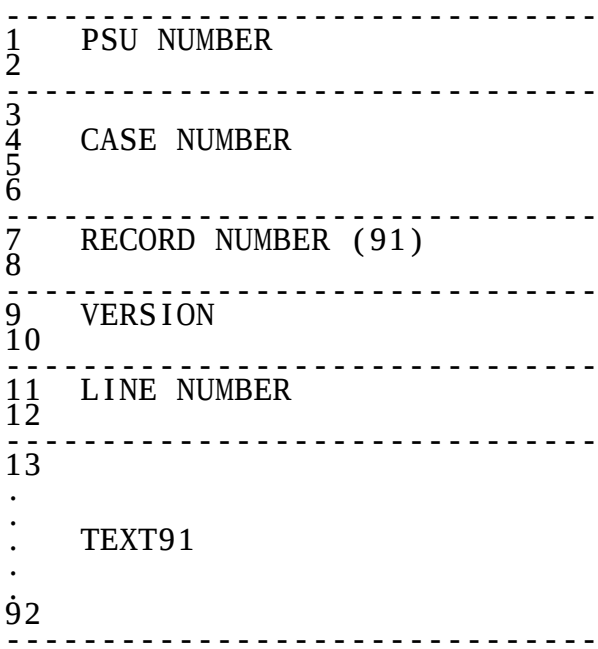
ACCIDENT DESCRIPTION FORM

```
--------------------------------
1   PSU NUMBER
2
--------------------------------
3
4   CASE NUMBER
5
6
--------------------------------
7   RECORD NUMBER (71)
8
--------------------------------
9   VERSION
10
--------------------------------
11  LINE NUMBER
12
--------------------------------
13
.
.
.   TEXT71
.
.
92
--------------------------------
```

VEHICLE PROFILE FORM

```
--------------------------------
1   PSU NUMBER
2
--------------------------------
3
4   CASE NUMBER
5
6
--------------------------------
7   RECORD NUMBER (81)
8
--------------------------------
9   VERSION
10
--------------------------------
11  LINE NUMBER
12
--------------------------------
13
.
.
.   TEXT81
.
.
92
--------------------------------
```

PERSON PROFILE FORM



SECTION 6
SAS FILE

NASS data are available in the form of a Statistical Analysis System (SAS) file. SAS is a highly flexible statistical package that provides a high level programming language for effective matrix manipulation and data management facilities.

SAS is a non-hierarchical data base. The SAS data base for NASS consists of eleven individual data sets, corresponding to the six NASS CDS data collection records. The exceptions are (1) the Case Summary record which is broken into four data sets, the Type Accident, the Accident Description, the Vehicle Profile and the Person Profile data sets and (2) the Accident record which is broken into Accident and Accident Event data sets. The other data sets are General Vehicle, Exterior Vehicle, Interior Vehicle, Occupant Assessment and Occupant Injury. Using modified relational database concepts, SAS allows the natural hierarchical structure of NASS data to be fully explored by the analyst. An analyst can create a new SAS data set by merging data from several levels of the NASS hierarchy--e. g., vehicle and occupant levels--through use of an appropriate set of SAS commands within the DATA step.

SAS Data Base Contents

The variable names in the NASS/SAS data base are from the data collection forms or derived variables and are limited to eight characters. The SAS data base is generally an exact representation of the data contained on the NASS master file. The only exceptions are the following:

- Numeric variables for which 9, 99, etc. represent "unknown" are recoded to the SAS special missing value .U ("dot-u") and are not included in percentage tabulations;

- The value of 95 ("test refused") for Alcohol Test Result For Driver (ALCTEST) has been recoded to .B; the value of 96 ("none given") has been recoded to .C; the value of 97 ("performed, results unknown") has been recoded to .D; the value of 98 ("no driver present") has been recoded to .E; and the value of 99 ("unknown") has been recoded to .U; these values are not included in percentage tabulations;

- Missing data for numeric values are recoded as "." in SAS and are not included in percentage tabulations;

- Values for derived variables which cannot be computed due to conditions where a form is not completed e.g., non CDS applicable vehicle have been recoded to .N ("not coded");

- Hour of Day (Time) is stored as a SAS time value and has an output format of HHMM5.

PSU NUMBER (PSU), CASE NUMBER-STRATUM (CASEID) and CASE SEQUENCE NUMBER (CASENO) are identical variables across all NASS records. CASENO is the first three digits of CASEID. Therefore, PSU and either CASENO or CASEID can be used to merge NASS record levels. Similarly, VEHICLE NUMBER (VEHNO) is identical in the General Vehicle, Exterior Vehicle, Interior Vehicle, Occupant Assessment and Occupant Injury record levels and can be used to merge these records in the DATA step.

The remainder of this Section presents the SAS layout for the current year NASS Analysis file. In general, the order of variables in the SAS data sets follows the order of data fields on the master file (and thus the order of items on the data collection forms used by NASS investigation teams). The user can invoke PROC CONTENTS to produce the following list of SAS variables:

```
        The SAS System                                  1
                              10:25 Friday, September 15, 2000

      CONTENTS PROCEDURE

     -----Directory-----

   Libref:        NASS99
   Engine:        V612
   Physical Name: e:\anal99

 #  Name      Memtype  Indexes
ffffffffffffffffffffffffffff
 1  ACCIDENT  DATA
 2  ACC_DESC  DATA
 3  EVENT     DATA
 4  GV        DATA
 5  OA        DATA
 6  OI        DATA
 7  PERS_PRO  DATA
 8  TYP_ACC   DATA
 9  VE        DATA
10  VEH_PRO   DATA
11  VI        DATA
```

CONTENTS PROCEDURE

Data Set Name:	NASS99.ACCIDENT	Observations:	4274
Member Type:	DATA	Variables:	25
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	79
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	42
File Format:	607
First Data Page:	1
Max Obs per Page:	103
Obs in First Data Page:	60

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
1	AAIS	Num	3	0	MAXIMUM KNOWN AIS IN ACCIDENT
22	ADMINSS	Num	3	67	ADMINISTRATIVE USE
2	AINJSER	Num	3	3	NUMBER OF SERIOUSLY INJURED OCCUPANTS
3	AINJURED	Num	3	6	TOTAL NUMBER OF INJURED OCCUPANTS
4	ALCINV	Num	3	9	ALCOHOL INVOLVED IN ACCIDENT
5	ATREAT	Num	3	12	MAXIMUM TREATMENT IN ACCIDENT
6	CASEID	Char	4	15	CASE NUMBER - STRATUM
7	CASENO	Num	3	19	CASE SEQUENCE NUMBER
8	DAYWEEK	Num	3	22	DAY OF WEEK OF ACCIDENT
9	DRGINV	Num	3	25	DRUG INVOLVED
10	EVENTS	Num	3	28	NUMBER OF RECORDED EVENTS IN ACCIDENT
11	FIRESTDY	Num	3	31	IMPACT FIRES
12	MANCOLL	Num	3	34	MANNER OF COLLISION
13	MONTH	Num	3	37	MONTH OF ACCIDENT
14	PEDSTUDY	Num	3	40	PEDESTRIAN CRASH DATA STUDY
15	PSU	Num	3	43	PRIMARY SAMPLING UNIT NUMBER
16	PSUSTRAT	Num	3	46	PRIMARY SAMPLING UNIT STRATIFICATION
23	RABSS	Num	3	70	REDESIGNED AIR BAG SPECIAL STUDY
17	RATWGT	Num	6	49	RATIO INFLATION FACTOR
18	STRATIF	Char	1	55	CASE STRATUM
19	TIME	Num	4	56	TIME OF ACCIDENT
24	TRKURIDE	Num	3	73	TRUCK UNDERRIDE
20	VEHFORMS	Num	3	60	NUMBER GENERAL VEHICLE FORMS SUBMITTED
25	VERSION	Num	3	76	VERSION NUMBER
21	YEAR	Num	4	63	YEAR OF ACCIDENT

```
-----Sort Information-----

Sortedby:      PSU CASENO
Validated:     YES
Character Set: ANSI
```

CONTENTS PROCEDURE

Data Set Name:	NASS99.ACC_DESC	Observations:	34025
Member Type:	DATA	Variables:	7
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	97
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	406
File Format:	607
First Data Page:	1
Max Obs per Page:	84
Obs in First Data Page:	71

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
6	CASEID	Char	4	90	CASE NUMBER - STRATUM
3	CASENO	Num	3	83	CASE SEQUENCE NUMBER
5	LINENO	Num	3	87	LINE NUMBER
2	PSU	Num	3	80	PRIMARY SAMPLING UNIT NUMBER
4	STRATIF	Char	1	86	CASE STRATUM
1	TEXT71	Char	80	0	SUMMARY TEXT
7	VERSION	Num	3	94	VERSION NUMBER

-----Sort Information-----

Sortedby:	PSU CASENO LINENO
Validated:	YES
Character Set:	ANSI

CONTENTS PROCEDURE

Data Set Name:	NASS99.EVENT	Observations:	7520
Member Type:	DATA	Variables:	13
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	37
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	35
File Format:	607
First Data Page:	1
Max Obs per Page:	220
Obs in First Data Page:	168

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
1	ACCSEQ	Num	3	0	ACCIDENT EVENT SEQUENCE NUMBER
2	CASEID	Char	4	3	CASE NUMBER - STRATUM
3	CASENO	Num	3	7	CASE SEQUENCE NUMBER
5	CLASS1	Num	3	13	CLASS OF FIRST VEHICLE
4	CLASS2	Num	3	10	CLASS OF OTHER VEHICLE
6	GADEV1	Char	1	16	GENERAL AREA OF DAMAGE FIRST VEHICLE
7	GADEV2	Char	1	17	GENERAL AREA OF DAMAGE OTHER VEHICLE
8	OBJCONT	Num	3	18	OTHER VEHICLE NUMBER OR OBJECT CONTACTED
10	PSU	Num	3	27	PRIMARY SAMPLING UNIT NUMBER
9	RATWGT	Num	6	21	RATIO INFLATION FACTOR
11	STRATIF	Char	1	30	CASE STRATUM
12	VEHNUM	Num	3	31	VEHICLE NUMBER
13	VERSION	Num	3	34	VERSION NUMBER

-----Sort Information-----

Sortedby:	PSU CASENO ACCSEQ
Validated:	YES
Character Set:	ANSI

CONTENTS PROCEDURE

Data Set Name: NASS99.GV
Member Type: DATA
Engine: V612
Created: 10:50 Friday, September 15, 2000
Last Modified: 10:50 Friday, September 15, 2000
Protection:
Data Set Type:
Label:

Observations: 7490
Variables: 101
Indexes: 0
Observation Length: 326
Deleted Observations: 0
Compressed: NO
Sorted: YES

-----Engine/Host Dependent Information-----

Data Set Page Size: 10240
Number of Data Set Pages: 243
File Format: 607
First Data Page: 2
Max Obs per Page: 31
Obs in First Data Page: 22

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
1	ACCSEQDV	Num	3	0	ACCIDENT SEQUENCE NO FOR HIGHEST DELTA V
2	ACCTYPE	Num	3	3	ACCIDENT TYPE
3	ALCTEST	Num	3	6	ALCOHOL TEST RESULT FOR DRIVER
48	ALIGNMNT	Num	3	149	ROADWAY ALIGNMENT
5	ANGOTHER	Num	3	12	HEADING ANGLE FOR OTHER VEHICLE
4	ANGTHIS	Num	3	9	HEADING ANGLE FOR THIS VEHICLE
86	ANTILOCK	Num	3	271	ANTILOCK BRAKES
6	AOPSVEH	Num	3	15	AOPS VEHICLE
8	BAGDEPFV	Num	3	21	AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL
9	BAGDEPOV	Num	3	24	AIR BAG DEPLOYMENT, OTHER
10	BAREQSP	Num	3	27	BARRIER EQUIVALENT SPEED
11	BODYTYPE	Num	3	30	VEHICLE BODY TYPE
90	CARBUR	Char	1	277	CARBURETION
12	CARGOWGT	Num	3	33	VEHICLE CARGO WEIGHT
13	CASEID	Char	4	36	CASE NUMBER - STRATUM
14	CASENO	Num	3	40	CASE SEQUENCE NUMBER
15	CONDTREE	Num	3	43	POST COLLISION CONDITION OF TREE OR POLE
16	CURBWGT	Num	4	46	VEHICLE CURB WEIGHT
95	DAYRUNLT	Char	1	286	DAYLIGHT RUNNING LIGHTS
18	DOCTRAJ	Num	3	53	DOCUMENTATION OF TRAJECTORY DATA
20	DRINKING	Num	3	59	POLICE REPORTED ALCOHOL PRESENCE
19	DRIVDIST	Num	3	56	DRIVER'S DISTRACTION/INATTENTION TO DRIV
21	DRIVE	Num	3	62	FRONT/REAR WHEEL DRIVE
22	DRPRES	Num	3	65	DRIVER PRESENCE IN VEHICLE
23	DRRACE	Num	3	68	DRIVER'S RACE/ETHNIC ORIGIN
74	DRUGS	Num	3	233	REPORTED OTHER DRUG
24	DRZIP	Num	4	71	DRIVER'S ZIP CODE
25	DVBASIS	Num	3	75	BASIS FOR TOTAL DELTA V (HIGHEST)
26	DVCONFID	Num	3	78	CONFIDENCE IN RECONSTRUCTION
17	DVEST	Num	3	50	ESTIMATED HIGHEST DELTA V
27	DVLAT	Num	3	81	LATERAL COMPONENT OF DELTA V
28	DVLONG	Num	3	84	LONGITUDINAL COMPONENT OF DELTA V
29	DVTOTAL	Num	3	87	TOTAL DELTA V

CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
30	ENERGY	Num	4	90	ENERGY ABSORPTION
88	FOURWHDR	Char	1	275	FOUR WHEEL DRIVE
31	FOVERIDE	Num	3	94	FRONT OVERRIDE/UNDERRIDE THIS VEHICLE
87	FRTWHLDR	Char	1	274	FRONT WHEEL DRIVE
91	FUELCODE	Char	1	278	FUEL CODE
32	IMPACTSP	Num	3	97	IMPACT SPEED
33	INSPTYPE	Num	3	100	TYPE OF VEHICLE INSPECTION
34	LANES	Num	3	103	NUMBER OF LANES
35	LGTCOND	Num	3	106	LIGHT CONDITIONS
36	MAKE	Num	3	109	VEHICLE MAKE
37	MANEUVER	Num	3	112	ATTEMPTED AVOIDANCE MANEUVER
77	MCYCLDS	Num	4	242	MOTORCYCLE ENGINE DISPLACEMENT
38	MODEL	Num	3	115	VEHICLE MODEL
39	MODELYR	Num	4	118	VEHICLE MODEL YEAR
41	OCCFORMS	Num	3	128	NUMBER OF OCCUPANT FORMS SUBMITTED
42	OCUPANTS	Num	3	131	NUMBER OF OCCUPANTS THIS VEHICLE
97	OTBDYTYP	Num	3	291	BODY TYPE OF THE OTHER VEHICLE
96	OTVEHWGT	Num	4	287	WEIGHT OF THE OTHER VEHICLE
43	PREEVENT	Num	3	134	INITIAL CRITICAL (PRECRASH) EVENT
45	PREILOC	Num	3	140	PRE-IMPACT LOCATION
46	PREISTAB	Num	3	143	PRE-IMPACT STABILITY
44	PREMOVE	Num	3	137	PRE-EVENT MOVEMENT PRIOR REC CRIT EVENT
50	PROFILE	Num	3	155	ROADWAY PROFILE
47	PSU	Num	3	146	PRIMARY SAMPLING UNIT NUMBER
40	RATWGT	Num	6	122	RATIO INFLATION FACTOR
52	RELINTER	Num	3	161	RELATION TO JUNCTION
89	RESTYPE	Char	1	276	RESTRAINT TYPE
53	ROLINDIR	Num	3	164	DIRECTION OF INITIAL ROLL
54	ROLINLOC	Num	3	167	LOCATION OF ROLLOVER
55	ROLINTYP	Num	3	170	ROLLOVER INITIATION TYPE
56	ROLLOBJ	Num	3	173	ROLLOVER INITIATION OBJECT CONTACTED
57	ROLLOVER	Num	3	176	ROLLOVER
83	ROOF1	Num	3	262	ROOF
84	ROOF2	Num	3	265	OPTIONAL ROOF 1
85	ROOF3	Num	3	268	OPTIONAL ROOF 2
58	ROVERIDE	Num	3	179	REAR OVERRIDE/UNDERRIDE THIS VEHICLE
81	SERTR	Char	3	257	VIN SERIES TRUCK
59	SPECOTH	Num	3	182	OTHER DRUG: SPECIMEN TEST RESULTS
60	SPLIMIT	Num	3	185	SPEED LIMIT
61	STRATIF	Char	1	188	CASE STRATUM
49	SURCOND	Num	3	152	ROADWAY SURFACE CONDITION
51	SURTYPE	Num	3	158	ROADWAY SURFACE TYPE
62	TOWHITCH	Num	3	189	TOWED TRAILING UNIT
63	TOWPAR	Num	3	192	POLICE REPORTED VEHICLE DISPOSITION
64	TRAFCONT	Num	3	195	TRAFFIC CONTROL DEVICE
67	TRAFFLOW	Num	3	204	TRAFFICWAY FLOW
66	TRAVELSP	Num	3	201	POLICE REPORTED TRAVEL SPEED
65	TRCTLFCT	Num	3	198	TRAFFIC CONTROL DEVICE FUNCTIONING
68	TRIPLOC	Num	3	207	LOC. ON VEH. WHERE INIT TRIP FORCE APPL
101	VAIS	Num	8	318	MAXIMUM KNOWN AIS IN THIS VEHICLE
69	VEHNO	Num	3	210	VEHICLE NUMBER
93	VEHTYPE	Char	1	282	TYPE OF VEHICLE
70	VEHUSE	Num	3	213	VEHICLE SPECIAL USE

CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
78	VEHWGT	Num	4	246	VIN VEHICLE WEIGHT
76	VERSION	Num	3	239	VERSION NUMBER
71	VIN	Char	10	216	VEHICLE IDENTIFICATION NUMBER
80	VINAMOD	Char	3	254	VIN MODEL CARS & TRUCKS
82	VINBT	Char	2	260	VIN BODY TYPE
98	VINJSER	Num	8	294	NUMBER SERIOUSLY INJURED IN THIS VEHICLE
99	VINJURED	Num	8	302	NUMBER INJURED IN THIS VEHICLE
72	VINLNGTH	Num	3	226	VIN LENGTH
79	VINMAKE	Char	4	250	VIN MAKE
73	VINMODYR	Num	4	229	VIN MODEL YEAR
75	VINO	Num	3	236	VINO
100	VTREAT	Num	8	310	MAXIMUM TREATMENT IN THIS VEHICLE
7	WEATHER	Num	3	18	ATMOSPHERIC CONDITIONS
92	WGTCDTR	Num	3	279	TRUCK WEIGHT CODE
94	WHLDRWHL	Num	3	283	NUMBER WHEELS/NUMBER OF DRIVE WHEELS

-----Sort Information-----

Sortedby: PSU CASENO VEHNO
Validated: YES
Character Set: ANSI

CONTENTS PROCEDURE

Data Set Name:	NASS99.OA	Observations:	9770
Member Type:	DATA	Variables:	80
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	242
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	298
File Format:	607
First Data Page:	2
Max Obs per Page:	33
Obs in First Data Page:	25

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
1	ABELTAVL	Num	3	0	AUTOMATIC BELT SYSTEM AVAILABILITY/FUNC
2	ABELTUSE	Num	3	3	AUTOMATIC BELT (PASSIVE) SYSTEM USE
3	ABELTYPE	Num	3	6	AUTOMATIC (PASSIVE) BELT SYSTEM TYPE
4	ABLTFAIL	Num	3	9	AUTOMATIC (PASSIVE) BELT SYSTEM FAILURE
5	ABLTPROP	Num	3	12	PROPER USE OF AUTO (PASSIVE) BELT SYSTEM
6	AGE	Num	3	15	AGE OF OCCUPANT
7	BAGAVAIL	Num	3	18	AIR BAG SYSTEM AVAILABILITY
54	BAGAVOTH	Num	3	160	OTHER FRONTAL AIR BAG AVAILABILITY/FUNCT
8	BAGAVRPT	Num	3	21	POLICE REPORTED AIRBAG AVAILABILITY/FUNC
21	BAGCDC	Num	3	61	CDC FOR AIR BAG DEPLOYMENT IMPACT
28	BAGCONOT	Num	3	82	AIR BAG CONTACTED BY ANOTHER OCCUPANT
11	BAGDAMAG	Num	3	30	WAS THERE DAMAGE TO THE AIR BAG
67	BAGDAMSO	Num	3	202	SOURCE OF AIR BAG DAMAGE
9	BAGDEPLY	Num	3	24	AIR BAG SYSTEM DEPLOYED
55	BAGDEPOT	Num	3	163	OTHER AIR BAG SYSTEM DEPLOYMENT
10	BAGEVENT	Num	3	27	AIR BAG DEPLOYMENT ACCIDENT EVENT SEQUEN
12	BAGFAIL	Num	3	33	AIR BAG SYSTEM FAILURE
35	BAGFLDAM	Num	3	103	WERE AIR BAG MODULE COVER FLAPS DAMAGED
36	BAGFLOPN	Num	3	106	DID AIR BAG MODULE COVER FLAPS OPEN AT D
43	BAGMAINT	Num	3	127	PRIOR MAINTENANCE/SERVICE ON AIR BAG
13	BAGTETHR	Num	3	36	WAS THE AIR BAG TETHERED
14	BAGTYPE	Num	3	39	TYPE OF AIR BAG
72	BAGVENTS	Num	3	215	DID THE AIR BAG HAVE VENT PORTS
15	BELTANCH	Num	3	42	SHOULDER BELT UPPER ANCHORAGE ADJUSTMENT
57	BELTSOU	Num	3	169	PRIMARY SOURCE OF BELT USE DETERMINATION
79	BICARB	Num	3	236	ARTERIAL BLOOD GASES (ABG) HC03
78	BLOOD	Num	3	233	WAS THE OCCUPANT GIVEN BLOOD?
16	CASEID	Char	4	45	CASE NUMBER - STRATUM
17	CASENO	Num	3	49	CASE SEQUENCE NUMBER
18	CAUSE1	Num	3	52	1ST MEDICALLY REPORTED CAUSE OF DEATH
19	CAUSE2	Num	3	55	2ND MEDICALLY REPORTED CAUSE OF DEATH
20	CAUSE3	Num	3	58	3RD MEDICALLY REPORTED CAUSE OF DEATH
22	CHHARNES	Num	3	64	CHILD SAFETY SEAT HARNESS USAGE

CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
23	CHMAKE	Num	3	67	CHILD SAFETY SEAT MAKE/MODEL
24	CHORIENT	Num	3	70	CHILD SAFETY SEAT ORIENTATION
25	CHSHIELD	Num	3	73	CHILD SAFETY SEAT SHIELD USAGE
26	CHTETHER	Num	3	76	CHILD SAFETY SEAT TETHER USAGE
27	CHTYPE	Num	3	79	TYPE OF CHILD SAFETY SEAT
29	DEATH	Num	3	85	TIME TO DEATH
30	DVBAG	Num	3	88	LONGITUDINAL COMPONENT OF DELTA V FOR AI
31	EJCTAREA	Num	3	91	EJECTION AREA
32	EJCTMED	Num	3	94	EJECTION MEDIUM
33	EJECTION	Num	3	97	EJECTION
34	ENTRAP	Num	3	100	ENTRAPMENT
51	EYEWEAR	Num	3	151	WAS THE OCCUPANT WEARING EYE-WEAR
77	GLASGOW	Num	3	230	GLASGOW COMA SCALE (GCS) SCORE
37	HEADREST	Num	3	109	HEAD RESTRAINT TYPE/DAMAGE BY OCCUPANT
38	HEIGHT	Num	3	112	HEIGHT OF OCCUPANT
39	HOSPSTAY	Num	3	115	HOSPITAL STAY
40	INJNUM	Num	3	118	NUMBER RECORDED INJURIES THIS OCCUPANT
41	INJSEV	Num	3	121	INJURY SEVERITY (POLICE RATING)
42	ISS	Num	3	124	INJURY SEVERITY SCORE
44	MAIS	Num	3	130	MAXIMUM KNOWN OCCUPANT AIS
45	MANAVAIL	Num	3	133	MANUAL BELT SYSTEM AVAILABILITY
46	MANFAIL	Num	3	136	MANUAL BELT FAILURE MODE DURING ACCIDENT
47	MANPROPR	Num	3	139	PROPER USE OF MANUAL BELTS
48	MANUSE	Num	3	142	MANUAL BELT SYSTEM USE
50	MEDFACIL	Num	3	148	TYPE MEDICAL FACILITY INITIAL TREATMENT
49	MEDSTA	Num	3	145	MEDIUM STATUS (PRIOR TO IMPACT)
52	OCCMOBIL	Num	3	154	OCCUPANT MOBILITY
53	OCCNO	Num	3	157	OCCUPANT NUMBER
56	PARUSE	Num	3	166	POLICE REPORTED RESTRAINT USE
58	POSTURE	Num	3	172	OCCUPANT'S POSTURE
59	PREVACC	Num	3	175	HAD VEHICLE BEEN IN PREVIOUS ACCIDENTS
60	PSU	Num	3	178	PRIMARY SAMPLING UNIT NUMBER
61	RATWGT	Num	6	181	RATIO INFLATION FACTOR
62	ROLE	Num	3	187	OCCUPANT'S ROLE
63	SEATPERF	Num	3	190	SEAT PERFORMANCE (THIS POSITION)
64	SEATPOS	Num	3	193	OCCUPANT'S SEAT POSITION
70	SEATRACK	Num	3	209	SEAT TRACK ADJUSTED POSITION PRIOR TO IM
65	SEATTYPE	Num	3	196	SEAT TYPE (THIS OCCUPANT POSITION)
66	SEX	Num	3	199	OCCUPANT'S SEX
68	STBACINC	Num	3	205	SEAT BACK INCLINE PRIOR AND POST IMPACT
76	STORIENT	Num	3	227	SEAT ORIENTATION (THIS OCCUPANT POS.)
69	STRATIF	Char	1	208	CASE STRATUM
71	TREATMNT	Num	3	212	TREATMENT - MORTALITY
73	VEHNO	Num	3	218	VEHICLE NUMBER
80	VERSION	Num	3	239	VERSION NUMBER
74	WEIGHT	Num	3	221	OCCUPANT'S WEIGHT
75	WORKDAYS	Num	3	224	WORKING DAYS LOST

-----Sort Information-----

Sortedby: PSU CASENO VEHNO OCCNO
Validated: YES
Character Set: ANSI

CONTENTS PROCEDURE

Data Set Name:	NASS99.OI	Observations:	29550
Member Type:	DATA	Variables:	23
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	65
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	237
File Format:	607
First Data Page:	1
Max Obs per Page:	125
Obs in First Data Page:	76

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
1	AIS	Num	3	0	A.I.S. SEVERITY
2	ASPECT90	Num	3	3	ASPECT90
22	BODYREG	Char	1	63	BODY REGION
3	CASEID	Char	4	6	CASE NUMBER - STRATUM
4	CASENO	Num	3	10	CASE SEQUENCE NUMBER
5	DIRINJ	Num	3	13	DIRECT/INDIRECT INJURY
6	INJLEVEL	Num	3	16	INJURY LEVEL
7	INJNO	Num	3	19	INJURY NUMBER
8	INJSOU	Num	3	22	INJURY SOURCE
9	INTRUNO	Num	3	25	OCCUPANT AREA INTRUSION NO.
23	LESION	Char	1	64	LESION (A.I.S. - O.I.C.)
10	OCCNO	Num	3	28	OCCUPANT NUMBER
11	PSU	Num	3	31	PRIMARY SAMPLING UNIT NUMBER
12	RATWGT	Num	6	34	RATIO INFLATION FACTOR
13	REGION90	Num	3	40	BODY REGION (O.I.C. - A.I.S.)
14	SOUCON	Num	3	43	INJURY SOURCE CONFIDENCE LEVEL
15	SOUDAT	Num	3	46	SOURCE OF INJURY DATA
16	STRATIF	Char	1	49	CASE STRATUM
17	STRUSPEC	Num	3	50	SPECIFIC ANATOMIC STRUCTURE
18	STRUTYPE	Num	3	53	TYPE OF ANATOMIC STRUCTURE
21	SYSORG	Char	1	62	SYSTEM/ORGAN (O.I.C. - A.I.S.)
19	VEHNO	Num	3	56	VEHICLE NUMBER
20	VERSION	Num	3	59	VERSION NUMBER

-----Sort Information-----

Sortedby:	PSU CASENO VEHNO OCCNO INJNO
Validated:	YES
Character Set:	ANSI

CONTENTS PROCEDURE

Data Set Name:	NASS99.PERS_PRO	Observations:	19209
Member Type:	DATA	Variables:	7
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	97
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	229
File Format:	607
First Data Page:	1
Max Obs per Page:	84
Obs in First Data Page:	71

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
6	CASEID	Char	4	90	CASE NUMBER - STRATUM
3	CASENO	Num	3	83	CASE SEQUENCE NUMBER
5	LINENO	Num	3	87	LINE NUMBER
2	PSU	Num	3	80	PRIMARY SAMPLING UNIT NUMBER
4	STRATIF	Char	1	86	CASE STRATUM
1	TEXT91	Char	80	0	SUMMARY TEXT
7	VERSION	Num	3	94	VERSION NUMBER

-----Sort Information-----

Sortedby:	PSU CASENO LINENO
Validated:	YES
Character Set:	ANSI

CONTENTS PROCEDURE

Data Set Name:	NASS99.TYP_ACC	Observations:	4274
Member Type:	DATA	Variables:	7
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	97
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	52
File Format:	607
First Data Page:	1
Max Obs per Page:	84
Obs in First Data Page:	71

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
6	CASEID	Char	4	90	CASE NUMBER - STRATUM
3	CASENO	Num	3	83	CASE SEQUENCE NUMBER
5	LINENO	Num	3	87	LINE NUMBER
2	PSU	Num	3	80	PRIMARY SAMPLING UNIT NUMBER
4	STRATIF	Char	1	86	CASE STRATUM
1	TEXT66	Char	80	0	SUMMARY TEXT
7	VERSION	Num	3	94	VERSION NUMBER

-----Sort Information-----

Sortedby:	PSU CASENO LINENO
Validated:	YES
Character Set:	ANSI

CONTENTS PROCEDURE

Data Set Name: NASS99.VE
Member Type: DATA
Engine: V612
Created: 10:50 Friday, September 15, 2000
Last Modified: 10:50 Friday, September 15, 2000
Protection:
Data Set Type:
Label:

Observations: 5457
Variables: 63
Indexes: 0
Observation Length: 180
Deleted Observations: 0
Compressed: NO
Sorted: YES

-----Engine/Host Dependent Information-----

Data Set Page Size: 8192
Number of Data Set Pages: 123
File Format: 607
First Data Page: 2
Max Obs per Page: 45
Obs in First Data Page: 45

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
1	ACCSEQ1	Num	3	0	ACCIDENT EVENT SEQUENCE (HIGHEST)
2	ACCSEQ2	Num	3	3	ACCIDENT EVENT SEQUENCE (2ND HIGHEST)
3	ALTVEH	Num	3	6	MULTI-STAGE MANUFACTURED/CERT. ALT. VEH.
5	CASEID	Char	4	12	CASE NUMBER - STRATUM
6	CASENO	Num	3	16	CASE SEQUENCE NUMBER
7	DIRDAMW	Num	3	19	DIRECT DAMAGE WIDTH
8	DOCCDC	Num	3	22	CDCs DOCUMENTED BUT NOT CODED ON FILE?
17	DOF1	Num	3	49	DIRECTION OF FORCE (HIGHEST)
18	DOF2	Num	3	52	DIRECTION OF FORCE (2ND HIGHEST)
9	DVC1	Num	3	25	CRUSH PROFILE C1 (HIGHEST)
10	DVC2	Num	3	28	CRUSH PROFILE C2 (HIGHEST)
11	DVC3	Num	3	31	CRUSH PROFILE C3 (HIGHEST)
12	DVC4	Num	3	34	CRUSH PROFILE C4 (HIGHEST)
13	DVC5	Num	3	37	CRUSH PROFILE C5 (HIGHEST)
14	DVC6	Num	3	40	CRUSH PROFILE C6 (HIGHEST)
15	DVD	Num	3	43	CRUSH PROFILE D (HIGHEST)
16	DVL	Num	3	46	CRUSH PROFILE L (HIGHEST)
20	EXTENT1	Num	3	58	DEFORMATION EXTENT (HIGHEST)
21	EXTENT2	Num	3	61	DEFORMATION EXTENT (2ND HIGHEST)
24	FIRE	Num	3	70	FIRE OCCURRENCE
25	FIREORIG	Num	3	73	ORIGIN OF FIRE
22	FUELCAP1	Num	3	64	LOCATION OF FUEL TANK-1 FILLER CAP
23	FUELCAP2	Num	3	67	LOCATION OF FUEL TANK-2 FILLER CAP
26	FUELDAM1	Num	3	76	DAMAGE TO FUEL TANK-1
27	FUELDAM2	Num	3	79	DAMAGE TO FUEL TANK-2
36	FUELEAK1	Num	3	102	LEAKAGE LOCATION OF FUEL SYSTEM-1
37	FUELEAK2	Num	3	105	LEAKAGE LOCATION OF FUEL SYSTEM-2
38	FUELGT2	Num	3	108	EQUIPPED WITH MORE THAN TWO FUEL TANKS
30	FUELLOC1	Num	3	84	LOCATION OF FUEL TANK-1
31	FUELLOC2	Num	3	87	LOCATION OF FUEL TANK-2
32	FUELTNK1	Num	3	90	TYPE OF FUEL TANK-1
33	FUELTNK2	Num	3	93	TYPE OF FUEL TANK-2
34	FUELTYP1	Num	3	96	FUEL TYPE-1

CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
35	FUELTYP2	Num	3	99	FUEL TYPE-2
28	GAD1	Char	1	82	DEFORMATION LOCATION (HIGHEST)
29	GAD2	Char	1	83	DEFORMATION LOCATION (2ND HIGHEST)
39	OBJCONT1	Num	3	111	OBJECT CONTACTED (HIGHEST)
40	OBJCONT2	Num	3	114	OBJECT CONTACTED (2ND HIGHEST)
4	ORIGAVTW	Num	3	9	ORIGINAL AVERAGE TRACK WIDTH
41	PDOF1	Num	3	117	CLOCK DIRECTION FOR PDOF IN DEGREES (HIG
42	PDOF2	Num	3	120	CLOCK DIRECTION FOR PDOF IN DEGREES (2ND
43	PSU	Num	3	123	PRIMARY SAMPLING UNIT NUMBER
44	RATWGT	Num	6	126	RATIO INFLATION FACTOR
45	SDVC1	Num	3	132	CRUSH PROFILE C1 (2ND HIGHEST)
46	SDVC2	Num	3	135	CRUSH PROFILE C2 (2ND HIGHEST)
47	SDVC3	Num	3	138	CRUSH PROFILE C3 (2ND HIGHEST)
48	SDVC4	Num	3	141	CRUSH PROFILE C4 (2ND HIGHEST)
49	SDVC5	Num	3	144	CRUSH PROFILE C5 (2ND HIGHEST)
50	SDVC6	Num	3	147	CRUSH PROFILE C6 (2ND HIGHEST)
51	SDVD	Num	3	150	CRUSH PROFILE D (2ND HIGHEST)
52	SDVL	Num	3	153	CRUSH PROFILE L (2ND HIGHEST)
53	SHL1	Char	1	156	SPECIFIC LONGITUDINAL LOCATION (HIGHEST)
54	SHL2	Char	1	157	SPECIFIC LONGITUDINAL LOC. (2ND HIGHEST)
55	STRATIF	Char	1	158	CASE STRATUM
56	SVL1	Char	1	159	SPECIFIC VERTICAL LOCATION (HIGHEST)
57	SVL2	Char	1	160	SPECIFIC VERTICAL LOCATION (2ND HIGHEST)
58	TDD1	Char	1	161	TYPE OF DAMAGE DISTRIBUTION (HIGHEST)
59	TDD2	Char	1	162	TYPE OF DAMAGE DISTRIBUTION(2ND HIGHEST)
60	TOWRES	Num	3	163	RESEARCHER ASSESSMNT VEHICLE DISPOSITION
19	UNDENDW	Num	3	55	UNDEFORMED END WIDTH
61	VEHNO	Num	3	166	VEHICLE NUMBER
63	VERSION	Num	3	177	VERSION NUMBER
62	WHEELBAS	Num	8	169	ORIGINAL WHEELBASE

-----Sort Information-----

Sortedby: PSU CASENO VEHNO
Validated: YES
Character Set: ANSI

CONTENTS PROCEDURE

```
Data Set Name: NASS99.VEH_PRO                        Observations:         7696
Member Type:   DATA                                  Variables:            7
Engine:        V612                                  Indexes:              0
Created:       10:50 Friday, September 15, 2000      Observation Length:   97
Last Modified: 10:50 Friday, September 15, 2000      Deleted Observations: 0
Protection:                                          Compressed:           NO
Data Set Type:                                       Sorted:               YES
Label:
```

-----Engine/Host Dependent Information-----

```
Data Set Page Size:       8192
Number of Data Set Pages: 92
File Format:              607
First Data Page:          1
Max Obs per Page:         84
Obs in First Data Page:   71
```

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
6	CASEID	Char	4	90	CASE NUMBER - STRATUM
3	CASENO	Num	3	83	CASE SEQUENCE NUMBER
5	LINENO	Num	3	87	LINE NUMBER
2	PSU	Num	3	80	PRIMARY SAMPLING UNIT NUMBER
4	STRATIF	Char	1	86	CASE STRATUM
1	TEXT81	Char	80	0	SUMMARY TEXT
7	VERSION	Num	3	94	VERSION NUMBER

-----Sort Information-----

```
Sortedby:      PSU CASENO LINENO
Validated:     YES
Character Set: ANSI
```

CONTENTS PROCEDURE

Data Set Name:	NASS99.VI	Observations:	4954
Member Type:	DATA	Variables:	101
Engine:	V612	Indexes:	0
Created:	10:50 Friday, September 15, 2000	Observation Length:	305
Last Modified:	10:50 Friday, September 15, 2000	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	YES
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	9216
Number of Data Set Pages:	167
File Format:	607
First Data Page:	2
Max Obs per Page:	30
Obs in First Data Page:	17

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Label
49	ADAPTEQ	Num	3	143	ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT
50	BOLSTDEF	Num	3	146	KNEE BOLSTER DEFORMED - OCCUPANT CONTACT
100	BOLSTYPE	Num	3	299	TYPE OF KNEE BOLSTER COVERING
1	CASEID	Char	4	0	CASE NUMBER - STRATUM
2	CASENO	Num	3	4	CASE SEQUENCE NUMBER
53	CDRIR1	Num	3	155	1ST DOMINANT CRUSH DIRECTION
57	CDRIR2	Num	3	167	2ND DOMINANT CRUSH DIRECTION
61	CDRIR3	Num	3	179	3RD DOMINANT CRUSH DIRECTION
65	CDRIR4	Num	3	191	4TH DOMINANT CRUSH DIRECTION
69	CDRIR5	Num	3	203	5TH DOMINANT CRUSH DIRECTION
73	CDRIR6	Num	3	215	6TH DOMINANT CRUSH DIRECTION
77	CDRIR7	Num	3	227	7TH DOMINANT CRUSH DIRECTION
81	CDRIR8	Num	3	239	8TH DOMINANT CRUSH DIRECTION
85	CDRIR9	Num	3	251	9TH DOMINANT CRUSH DIRECTION
89	CDRIR10	Num	3	263	10TH DOMINANT CRUSH DIRECTION
98	COLMTELE	Num	3	293	TELESCOPING STEERING COLUMN ADJUSTMENT
99	COLMTILT	Num	3	296	TILT STEERING COLUMN ADJUSTMENT
51	COLUMTYP	Num	3	149	STEERING COLUMN TYPE
3	FAILLF	Num	3	7	LF DAMAGE/FAILURE ASSOCIATED W
4	FAILLR	Num	3	10	LR DAMAGE/FAILURE - OPENING IN COLLISION
5	FAILRF	Num	3	13	RF DAMAGE/FAILURE - OPENING IN COLLISION
6	FAILRR	Num	3	16	RR DAMAGE/FAILURE - OPENING IN COLLISION
7	FAILTG	Num	3	19	TG DAMAGE/FAILURE - OPENING IN COLLISION
8	GLIMPBL	Num	3	22	BL GLAZING DAMAGE FROM IMPACT FORCES
9	GLIMPLF	Num	3	25	LF GLAZING DAMAGE FROM IMPACT FORCES
10	GLIMPLR	Num	3	28	LR GLAZING DAMAGE FROM IMPACT FORCES
11	GLIMPOTH	Num	3	31	OTHER GLAZING DAMAGE FROM IMPACT FORCES
12	GLIMPRF	Num	3	34	RF GLAZING DAMAGE FROM IMPACT FORCES
13	GLIMPRR	Num	3	37	RR GLAZING DAMAGE FROM IMPACT FORCES
14	GLIMPRUF	Num	3	40	ROOF GLAZING DAMAGE FROM IMPACT FORCES
15	GLIMPWS	Num	3	43	WS GLAZING DAMAGE FROM IMPACT FORCES
16	GLOCCBL	Num	3	46	BL GLAZING DAMAGE FROM OCCUPANT CONTACT
17	GLOCCLF	Num	3	49	LF GLAZING DAMAGE FROM OCCUPANT CONTACT

CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
18	GLOCCLR	Num	3	52	LR GLAZING DAMAGE FROM OCCUPANT CONTACT
19	GLOCCOTH	Num	3	55	OTHER GLAZING DAMAGE FROM OCC. CONTACT
20	GLOCCRF	Num	3	58	RF GLAZING DAMAGE FROM OCCUPANT CONTACT
21	GLOCCRR	Num	3	61	RR GLAZING DAMAGE FROM OCCUPANT CONTACT
22	GLOCCRUF	Num	3	64	ROOF GLAZING DAMAGE FROM OCC. CONTACT
23	GLOCCWS	Num	3	67	WS GLAZING DAMAGE FROM OCCUPANT CONTACT
52	GLOVOPEN	Num	3	152	DID GLOVE COMPARTMENT DOOR OPEN
24	GLPREBL	Num	3	70	BL WINDOW PRECRASH GLAZING STATUS
25	GLPRELF	Num	3	73	LF WINDOW PRECRASH GLAZING STATUS
26	GLPRELR	Num	3	76	LR WINDOW PRECRASH GLAZING STATUS
27	GLPREOTH	Num	3	79	OTHER WINDOW PRECRASH GLAZING STATUS
28	GLPRERF	Num	3	82	RF WINDOW PRECRASH GLAZING STATUS
29	GLPRERR	Num	3	85	RR WINDOW PRECRASH GLAZING STATUS
30	GLPRERUF	Num	3	88	ROOF WINDOW PRECRASH GLAZING STATUS
31	GLPREWS	Num	3	91	WS WINDOW PRECRASH GLAZING STATUS
32	GLTYPBL	Num	3	94	BL TYPE OF WINDOW/WINDSHIELD GLAZING
33	GLTYPLF	Num	3	97	LF TYPE OF WINDOW/WINDSHIELD GLAZING
34	GLTYPLR	Num	3	100	LR TYPE OF WINDOW/WINDSHIELD GLAZING
35	GLTYPOTH	Num	3	103	OTHER TYPE OF WINDOW/WINDSHIELD GLAZING
36	GLTYPRF	Num	3	106	RF TYPE OF WINDOW/WINDSHIELD GLAZING
37	GLTYPRR	Num	3	109	RR TYPE OF WINDOW/WINDSHIELD GLAZING
38	GLTYPRUF	Num	3	112	ROOF TYPE OF WINDOW/WINDSHIELD GLAZING
39	GLTYPWS	Num	3	115	WS TYPE OF WINDOW/WINDSHIELD GLAZING
55	INCOMP1	Num	3	161	1ST INTRUDING COMPONENT
59	INCOMP2	Num	3	173	2ND INTRUDING COMPONENT
63	INCOMP3	Num	3	185	3RD INTRUDING COMPONENT
67	INCOMP4	Num	3	197	4TH INTRUDING COMPONENT
71	INCOMP5	Num	3	209	5TH INTRUDING COMPONENT
75	INCOMP6	Num	3	221	6TH INTRUDING COMPONENT
79	INCOMP7	Num	3	233	7TH INTRUDING COMPONENT
83	INCOMP8	Num	3	245	8TH INTRUDING COMPONENT
87	INCOMP9	Num	3	257	9TH INTRUDING COMPONENT
91	INCOMP10	Num	3	269	10TH INTRUDING COMPONENT
54	INLOC1	Num	3	158	1ST LOCATION OF INTRUSION
58	INLOC2	Num	3	170	2ND LOCATION OF INTRUSION
62	INLOC3	Num	3	182	3RD LOCATION OF INTRUSION
66	INLOC4	Num	3	194	4TH LOCATION OF INTRUSION
70	INLOC5	Num	3	206	5TH LOCATION OF INTRUSION
74	INLOC6	Num	3	218	6TH LOCATION OF INTRUSION
78	INLOC7	Num	3	230	7TH LOCATION OF INTRUSION
82	INLOC8	Num	3	242	8TH LOCATION OF INTRUSION
86	INLOC9	Num	3	254	9TH LOCATION OF INTRUSION
90	INLOC10	Num	3	266	10TH LOCATION OF INTRUSION
56	INMAG1	Num	3	164	1ST MAGNITUDE OF INTRUSION
60	INMAG2	Num	3	176	2ND MAGNITUDE OF INTRUSION
64	INMAG3	Num	3	188	3RD MAGNITUDE OF INTRUSION
68	INMAG4	Num	3	200	4TH MAGNITUDE OF INTRUSION
72	INMAG5	Num	3	212	5TH MAGNITUDE OF INTRUSION
76	INMAG6	Num	3	224	6TH MAGNITUDE OF INTRUSION
80	INMAG7	Num	3	236	7TH MAGNITUDE OF INTRUSION
84	INMAG8	Num	3	248	8TH MAGNITUDE OF INTRUSION
88	INMAG9	Num	3	260	9TH MAGNITUDE OF INTRUSION
92	INMAG10	Num	3	272	10TH MAGNITUDE OF INTRUSION

CONTENTS PROCEDURE

#	Variable	Type	Len	Pos	Label
93	ODOMETER	Num	3	275	ODOMETER READING
40	OPENLF	Num	3	118	LF DOOR, TAILGATE OR HATCH OPENING
41	OPENLR	Num	3	121	LR DOOR, TAILGATE OR HATCH OPENING
42	OPENRF	Num	3	124	RF DOOR, TAILGATE OR HATCH OPENING
43	OPENRR	Num	3	127	RR DOOR, TAILGATE OR HATCH OPENING
44	OPENTG	Num	3	130	TG DOOR, TAILGATE OR HATCH OPENING
94	PANELDAM	Num	3	278	INSTRUMENT PANEL DAMAGE - OCC. CONTACT
45	PASINTEG	Num	3	133	PASSENGER COMPARTMENT INTEGRITY
46	PSU	Num	3	136	PRIMARY SAMPLING UNIT NUMBER
95	RATWGT	Num	6	281	RATIO INFLATION FACTOR
96	RDEFLOC	Num	3	287	LOCATION STEERING RIM/SPOKE DEFORMATION
97	RIMDEF	Num	3	290	STEERING RIM/SPOKE DEFORMATION
47	STRATIF	Char	1	139	CASE STRATUM
48	VEHNO	Num	3	140	VEHICLE NUMBER
101	VERSION	Num	3	302	VERSION NUMBER

-----Sort Information-----

Sortedby: PSU CASENO VEHNO
Validated: YES
Character Set: ANSI

APPENDIX A

DATA COLLECTION FORMS
(These forms can be found in the NASS Data Collection, Coding and Editing Manual)

APPENDIX B

CODING INFORMATION FOR VEHICLE MAKE/MODEL
(The complete codes can be found in the NASS Data Collection, Coding and Editing Manual)

The primary source of information on vehicle make and model is vehicle inspection; the VIN provides vehicle make data. Secondary sources include the police report and interviews. If the make of the vehicle is known and the model is not known, but the vehicle type (e. g., passenger car) is known, then Vehicle Model is coded as "399" (Unknown automobile). If the make of the vehicle is not known but the body type is known (e.g., a hit-and-run 2-door sedan), then Vehicle Make is coded "99" (Unknown) and Vehicle Model is coded "399" (Unknown automobile). If no information is available for a vehicle, then Vehicle Make and Body Type are coded "99" (Unknown) and Vehicle Model is coded "999" (Unknown).
Vehicle models are organized into general groups. These groups are:

001-397 - Passenger vehicle (automobile)

398 - Other automobile

399 - Unknown automobile

401-490 - Light trucks (including compact and large utility vehicles, utility station wagons, minivans, large vans [includes step vans and van derivatives], compact pickup trucks, and large pickup trucks)

498 - Other light truck

499 - Unknown light truck

701-739 - Motored Cycles/ATCs/ATVs (including motorcycles, mopeds, minibikes, motorscooters and dirt bikes) (701 - 709 Motorcycles/Mopeds) (731 - 739 ATCs/ATVs)

798 - Other motored cycle

799 - Unknown motored cycle

801-890 - Medium/heavy trucks (includes all trucks over 10,000 lbs. GVWR except some pickup type trucks under Body Type code "31" -Large pickup)

898 - Other medium/heavy truck

899 - Unknown medium/heavy truck

901-983 - Buses

988 - Other bus

989 - Unknown bus

998 - Other vehicle (includes construction equipment, farm vehicles and go-karts)

999 - Unknown vehicle

Within these groups, the model codes for automobiles and light trucks generally are not ordered to give any indication of vehicle size or type. However, the model codes for motored cycles, medium/heavy trucks, buses and other vehicles have specific definition. These definitions are:

Motored Cycles

701 0-50cc
702 51-124cc
703 125-349cc
704 350-449cc
705 450-749cc
706 750cc or greater
709 Unknown cc

All Terrain Cycles/Vehicles

731 0-50cc
732 51-124cc
733 125-349cc
734 350cc or greater
739 Unknown cc

Trucks and Buses

850 M/H truck based motor home
881 Medium/Heavy - CBE
882 Medium/Heavy - COE/low entry
883 Medium/Heavy - COE/high entry
884 Medium/Heavy - Unknown engine location
890 Medium/Heavy - COE entry position unknown
950 Truck based motor home
981 Bus - conventional front engine
982 Bus - front engine/flat front
983 Bus - rear engine/flat front

Other

398 Other automobile
498 Other light truck
798 Other motored cycle
898 Other medium/heavy truck
988 Other bus
998 Other vehicle (farm vehicle, go-kart)

Unknown

399 Unknown automobile
499 Unknown light truck
799 Unknown motored cycle
899 Unknown medium/heavy truck
989 Unknown bus
999 Unknown vehicle

APPENDIX C

MISSING RECORD RULES

Under the NASS Crashworthiness Data System (CDS) the rules for the presence or absence of forms (records) in a crash will depend on whether data exists or has been collected. For example, if a vehicle is not inspected there will not be an Exterior Vehicle record; if an occupant does not have a recorded injury there will not be an Occupant Injury record. In the current year NASS CDS, at least one of each record type will be required for a crash which includes a towed, inspected, CDS applicable vehicle involved in a CDC applicable event (or CDC is blank) with an occupant having a recorded injury. The rules for the presence and absence of each record type and whether partial or complete are as follows:

Accident Record	One required for every crash.
Accident Event Record	At least one required for every crash.
General Vehicle Record	
Complete Record:	One required for every CDS applicable vehicle (GV07=01-49).
Partial Record:	One required (completed through variable GV36) for every non CDS applicable vehicle (GV07=50-99).
Exterior Vehicle Record	
Complete Record:	One required for every inspected (GV67=1-3) CDS applicable vehicle (GV07=01-49) involved in a CDC applicable event.
Partial Record:	One required for every inspected CDS applicable vehicle not involved in a CDC applicable event (variables EV04-19 will be blank).
Missing Record:	(1) Not inspected (GV67=0) CDS applicable vehicle. (2) Non CDS applicable vehicle (GV07=50-99).
Interior Vehicle Record	
Complete Record:	Towed (GV10=1), inspected (GV67=1-3), CDS applicable vehicle (GV07=01-49).
Missing Record:	(1) Towed, not inspected (GV67=0) CDS applicable vehicle. (2) Not towed (GV10=0 or 9) CDS applicable vehicle and no air bag deployment (GV41 = 0, 1, 3, 7, 9) and (GV42 = 0, 5, 7, 9). (3) Non CDS applicable vehicle (GV07=50-99).
Occupant Assessment	
Complete Record:	Towed (GV10=1), CDS applicable vehicle (GV07=01-49).
Missing Record:	(1) Not towed (GV10=0 or 9), CDS applicable vehicle and no air bag deployment (GV41 = 0, 1, 3, 7, 9) and (GV42 = 0, 5, 7, 9). (2) Non CDS applicable vehicle (GV07=50-99).

Occupant Injury Record

Complete Record:	Towed (GV10=1), CDS applicable vehicle (GV07=01-49) with an occupant having a recorded injury (OA70=01-96).
Missing Record:	(1) Towed, CDS applicable vehicle with occupant not having a recorded injury (OA70=00,97,99). (2) Not towed (GV10=0 or 9), CDS applicable vehicle and no air bag deployment (GV41 = 0, 1, 3, 7, 9) and (GV42 = 0, 5, 7, 9). (3) Non CDS applicable vehicle (GV07=50-99).

APPENDIX D

CDC AND DELTA-V

This section gives an overview of the Collision Deformation Classification (CDC) for cars, vans, and light trucks, per SAE J224 MAR 84 in the current year NASS. The CDC codes contain eight characters. If there is no CDC, these codes are left blank. If there is a CDC, these codes are as follows:

Direction of Force (2-character numeric). Sum of Clock Direction and Incremental Value of Shift if both are known. If either is unknown, direction of force is coded "99".

Clock Direction is coded as follows:

00	Non-horizontal force	07	7 o'clock
01	1 o'clock	08	8 o'clock
02	2 o'clock	09	9 o'clock
03	3 o'clock	10	10 o'clock
04	4 o'clock	11	11 o'clock
05	5 o'clock	12	12 o'clock
06	6 o'clock	99	Unknown

Incremental Value of Shift i.e., change in direction of the structure as opposed to crushing of the structure. It is coded as follows:

00	No shift
20	End shift vertical--up; top shift--forward
40	End shift vertical--down; top shift--rearward
60	End or top shift lateral--right
80	End or top shift lateral--left
99	Unknown

Deformation Location (1 character alphanumeric) is coded as follows:

F	Front
R	Right side
L	Left side
B	Back (rear)
T	Top
U	Undercarriage
9	Unknown

Specific Longitudinal or Lateral Location (1 character alphanumeric) is coded as follows:

Horizontal Impacts		Top or Undercarriage	
D	Distributed--side or end	D	Distributed (F+P+B)
L	Left--front or rear	F	Front Section
C	Center--front or rear	P	Center Section
R	Right--front or rear	B	Rear Section
F	Side front--left or right	Y	F+P
P	Side center section--L or R	Z	P+B
B	Side rear--left or right	9	Unknown
Y	Side (F + P) or end (L + C)		
Z	Side (P + B) or end (C + R)		
9	Unknown		

Specific Vertical or Lateral Location (1 character alphanumeric) is coded as follows:

Vertical - Front, Rear, or Side Impacts

A	All
H	Top of frame to top
E	Everything below belt line
G	Belt line and above
M	Middle--top of frame to belt line or hood
L	Frame--top of frame, frame, bottom of frame (including undercarriage)
W	Below undercarriage level (wheel and tires only)
9	Unknown

Lateral - Top and Undercarriage Impacts

D	Distributed
L	Left
C	Center
R	Right
Y	Left and Center (L + C)
Z	Right and Center (R + C)
9	Unknown

Type of Damage Distribution (1 character alphanumeric) is coded as follows:

W	Wide impact area	E	Corner
N	Narrow impact area	K	Conversion in impact type
S	Sideswipe	U	No residual deformation
O	Rollover (including side)	9	Unknown
A	Overhanging structure		

Deformation Extent Guide (2 character alphanumeric) is coded as follows:

01	One	06	Six
02	Two	07	Seven
03	Three	08	Eight
04	Four	09	Nine
05	Five	99	Unknown

Delta-V.

Delta-V is defined as the vector velocity change during the collision phase of a crash or as common velocity minus approach velocity, where common velocity is the velocity of both vehicles at the instant of maximum crush:

? V = V common - V approach

The direction of the vector is determined by the investigator as the direction of principal force. For each vehicle, the components of its Delta-V are obtained by projecting on the longitudinal and lateral axes of that vehicle.

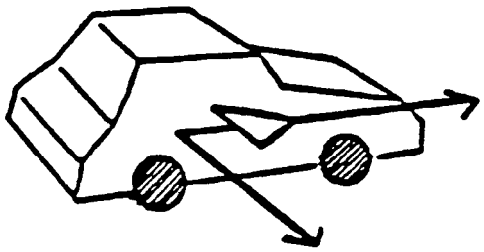


Figure D-1

Figure D-1 shows the positive direction of the longitudinal and lateral components of Delta-V. For example, in a head-on collision, a vehicle is decelerated and the initial high positive longitudinal velocity is reduced; thus it will have a negative longitudinal Delta-V.

APPENDIX E

SELECTED COUNTS

Users of the NASS Analysis file occasionally have requested that the manual include total counts for certain NASS statistics. These counts may help assure that the users are accessing the desired NASS tape. Further, such counts help to identify the source of apparent anomalies.

For this edition of the User's Manual, the following counts have been identified as potentially the most useful:

!	Total Number of Type Accident Records.....	4,274
!	Total Number of Accident Description Records.....	34,025
!	Total Number of Vehicle Profile Records.....	7,696
!	Total Number of Person Profile Records.....	19,209
!	Total Number of Accident Records.....	4,274
!	Total Number of Accident Event Records.....	7,520
!	Total Number of General Vehicle Records.....	7,490
!	Total Number of Exterior Vehicle Records.....	5,457
!	Total Number of Interior Vehicle Records.....	4,954
!	Total Number of Occupant Assessment Records.....	9,770
!	Total Number of Occupant Injury Records.....	29,550

(1) PSU Codes
(2) PSU Description
(3) Population (1990 & 1980)
(4) Land Area (Square Miles)
(5) Population (by Age Group)
(6) Number of Workers and Means of Transportation to Work
(7) Number of Housing Units and Vehicles Available

Demographics data on the 24 PSU's are included to give researchers supplementary information on the nature of the PSU's when analyzing NASS data. The land area figures are from the County and City Data Book, 1988. The 1990 population figures and the figures on age distribution of the population in 1990 are from Tables 54 and 61 of "1990 Census of Population, General Population Characteristics, Age and Sex by Race and Hispanic Origin: 1990 - County, Place and County Subdivision". The 1980 population figures and the figures on age distribution of the population in 1980 are from Tables 26 and 46 of "1980 Census of Population, Chapter B, General Population Characteristics, Persons by Age for Countries, Areas and Places: 1980". The figures pertaining to number of workers, means of transportation to work, number of housing units and vehicles available are from Table 6 "Employment Status and Journey to Work Characteristics: 1990" and Table 14 "Fuels and Equipment Characteristics: 1990" of "1990 Census of Population and Housing, Summary Social, Economic and Housing Characteristics".

PRIMARY SAMPLING UNIT (PSU) CODES AND DESCRIPTION

VALUES	STRATA	DESCRIPTION
03, 06, 41, 49, 72, 74, 79, 82	1	Central City, one of the 60 largest SMSAs
05, 08, 09, 12, 45, 73, 75, 81	2	Suburban, one of the 17 - 60th largest SMSAs or PSU within 61st - 119th largest SMSAs either containing or not containing a central city
02, 04, 11, 13, 43, 48, 76, 78	3	Other PSU

POPULATION

PSU	1990	1980	PERCENT CHANGE	LAND AREA
P02	165,304	158,158	+4.5	1131
P03	2,300,664	2,230,936	+3.1	70
P04	433,203	346,038	+25.2	641
P05	678,111	643,621	+5.4	486
P06	1,585,577	1,688,210	-6.1	136
P08	966,570	1,026,147	-5.8	672
P09	830,422	737,822	+12.6	939
P11	282,937	264,748	+6.9	710
P12	430,459	450,449	-4.4	642
P13	158,983	157,589	+0.9	507
P41	271,074	274,602	-1.3	55
P43	423,380	301,327	+40.5	854
P45	335,749	319,694	+5.0	506
P48	167,098	153,264	+9.0	1961
P49	1,006,877	904,078	+11.4	331
P72	2,783,726	3,005,072	-7.4	228
P73	475,594	522,965	-9.1	501
P74	416,444	397,038	+4.9	333
P75	441,500	374,194	+18.0	917
P76	74,778	71,348	+4.8	11219
P78	120,739	90,554	+33.3	9994
P79	4,948,333	4,149,319	+19.3	3554
P81	991,060	775,903	+27.7	2044
P82	516,259	493,846	+4.5	84
All PSUs	20,804,841	19,536,922	+6.5	38,515
Total U.S.	248,709,873	226,542,203	+9.8	3,618,770

POPULATION BY AGE GROUP (1990)

PSU	UNDER 5	5 TO 9	10 TO 14	15 TO 19	20 TO 24
P02	11396	11045	10150	11765	12206
P03	178420	165956	164476	164977	179622
P04	28816	27497	26434	25568	24228
P05	45837	43619	39570	39910	44516
P06	115871	104113	100472	107408	135952
P08	61325	59345	54992	54766	56554
P09	64026	58331	53667	59426	77972
P11	19160	17431	15395	24922	39623
P12	33436	33652	33493	33647	30825
P13	12854	12930	12082	11336	10353
P41	16068	14648	12681	13713	16586
P43	30174	27295	25468	29177	40887
P45	21426	21148	20155	24918	30077
P48	10818	11073	11539	15863	19330
P49	81138	70967	61951	65369	91074
P72	216468	201140	190488	200988	235616
P73	34039	37502	38942	36770	30902
P74	33314	32489	29325	28498	31740
P75	33469	34032	31125	29471	25841
P76	5771	6388	6418	5781	3973
P78	10160	10104	9608	9091	9573
P79	416258	377775	348590	364937	419299
P81	75665	74986	67462	62023	65249
P82	29269	23842	20057	25641	48364

POPULATION BY AGE GROUP (1990) CONT.

PSU	25 TO 29	30 TO 44	45 TO 64	65 & OVER
P02	14201	41415	32628	21498
P03	204387	538749	419020	285057
P04	30151	91778	78323	100408
P05	56186	165576	140904	101993
P06	142337	347907	290803	240714
P08	72966	232418	208629	165575
P09	88137	220574	151373	56916
P11	29635	71793	43592	21226
P12	34807	102684	84086	43829
P13	12576	36925	29149	20798
P41	22707	64861	55147	54663
P43	46171	118537	72478	33193
P45	28850	81291	65194	42690
P48	13062	36760	29473	19180
P49	120170	254770	163547	97891
P72	278694	645300	484450	330182
P73	35923	109188	93649	58679
P74	39112	101480	73153	47333
P75	37177	128350	86421	35614
P76	4502	14717	15167	12061
P78	9670	24212	20826	17495
P79	478019	1217438	859606	466411
P81	89923	275550	191520	88692
P82	55845	149538	85303	78400

WORKERS AND MEANS OF TRANSPORTATION TO WORK

PSU	WORKERS	% USING CAR, TRUCK OR VAN	% IN CARPOOLS	% USING PUBLIC TRANSIT
P02	78,739	88.6	12.3	1.7
P03	907,010	31.3	8.8	58.0
P04	178,966	92.7	13.3	2.0
P05	352,960	88.8	10.0	4.2
P06	640,577	57.8	13.2	28.7
P08	444,449	85.6	12.8	8.7
P09	468,944	83.7	19.0	11.2
P11	148,727	83.1	9.6	3.0
P12	174,589	95.2	10.1	0.8
P13	63,855	93.7	11.3	0.7
P41	126,578	88.7	13.3	3.6
P43	237,181	93.0	12.1	1.6
P45	160,829	91.1	12.4	1.1
P48	71,893	93.6	13.5	0.7
P49	500,566	87.6	15.2	6.7
P72	1,181,677	61.1	14.8	29.7
P73	199,700	91.5	12.4	3.6
P74	210,358	91.1	11.4	2.7
P75	238,304	90.8	12.2	3.0
P76	23,706	88.3	14.3	0.2
P78	45,834	86.4	18.2	1.3
P79	2,283,850	89.5	15.8	4.2
P81	525,998	89.2	11.0	4.9
P82	279,748	70.5	11.8	15.9

HOUSING UNITS AND VEHICLE AVAILABILITY

PSU	ALL OCCUPIED HOUSING UNITS	PERCENT WITH VEHICLES AVAILABLE: NONE	1	2 OR MORE
P02	60,807	9.0	33.2	57.8
P03	828,199	56.7	33.2	10.1
P04	168,147	8.9	42.0	49.1
P05	254,995	7.0	32.6	60.4
P06	603,075	38.1	40.5	21.4
P08	387,778	13.3	38.0	48.8
P09	290,961	8.9	33.7	57.4
P11	104,528	7.2	35.2	57.6
P12	161,296	11.3	34.7	54.0
P13	57,798	9.7	33.5	56.8
P41	119,344	13.6	46.1	40.3
P43	165,743	6.3	31.7	62.0
P45	133,639	9.4	33.8	56.8
P48	61,099	10.2	32.0	57.8
P49	402,042	11.2	44.2	44.6
P72	1,025,174	34.3	41.1	24.6
P73	170,748	12.5	35.2	52.3
P74	161,113	10.5	34.6	54.9
P75	167,853	3.3	26.8	69.9
P76	26,177	8.8	33.9	57.4
P78	41,139	6.4	39.3	54.3
P79	1,613,172	7.8	32.5	59.6
P81	379,090	4.2	27.7	68.1
P82	236,702	16.7	40.9	42.3